Move PGH Mid-Pilot Report

Executive Summary

About the Pilot

Move PGH was launched in July 2021 as a two-year pilot to bring Mobility as a Service (MaaS) to Pittsburgh. This program brings together existing and new mobility operators to further collaboration and innovation to create a more affordable, accessible, and equitable mobility ecosystem. Move PGH is the first authorized electric scooter program in the Commonwealth of Pennsylvania. This pilot will ultimately inform state and local policy regarding the operation of e-scooters.

Mid-Pilot Evaluation

This report reflects the learnings to date from the Move PGH pilot. Data shown in this report was collected from July 2021 to June 2022 unless otherwise noted. A final report will be issued at the conclusion of the pilot with further learnings and recommendations.

Key Findings

Total Number of Scooter Trips: 576,726 trips
Total Number of Miles on Spin Scooters: 735,233 miles
Total Number of POGOH Trips: 82,022 trips
Total Number of Scoobi Trips: 11,252 trips
Total Number of Miles on Scoobi Mopeds: 14,328 miles
Total Number of Zipcar Trips: 8,104 trips

Our operators have seen growth, changes and success since Move PGH began. Pittsburgh Regional Transit (formerly Port Authority of Allegheny County) released their strategic plan, NEXTransit and adopted its new name. HealthyRide relaunched as POGOH with a new fleet of electric-assist bikes and new stations. Zipcar expanded its fleet in Pittsburgh. Spin expanded their fleet and has seen high utilization.

Survey results of Spin users demonstrate the mode's successes and how e-scooters have become a vital part of our transportation network. 2212 Spin users responded to the survey, with demographics demonstrating that this sample is largely representative of Pittburgh's population. In this survey, 35% of Spin users responded that their scooter trips replaced private vehicle trips - taking approximately 257,000 vehicle miles off the road.

Move PGH is proof that shared mobility can be used to make transportation more affordable, accessible, equitable, and sustainable.

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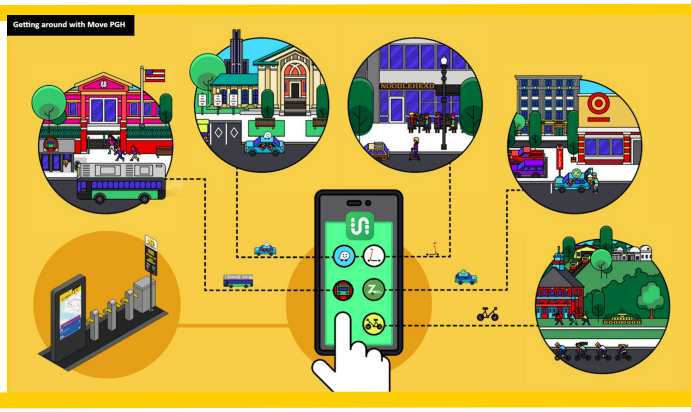
Background

On July 9th 2021, the City of Pittsburgh Department of Mobility and Infrastructure (DOMI) launched the landmark Move PGH program alongside the City's first fleet of dockless e-scooters. By coordinating the city's transportation services with mobility hubs, trip planning app technology, and various equitable offerings, the Pittsburgh Mobility Collective (PMC) showed how Pittsburghers can move about life in a sustainable, affordable, and enjoyable way. A year later, and halfway through the two-year pilot, we are taking a moment to reflect on our successes and lessons learned, and strategize for the future.

What is Mobility as a Service?

Mobility as a Service means bringing all of the transportation and mobility services together, both physically and technologically, to make mobility easier and more accessible.

This innovative idea utilizes the newest connective technologies available, including the Transit app, and creative placemaking and wayfinding techniques, like mobility hubs, which physically co-locate multiple mobility option



What is Shared Mobility?

Shared Mobility is defined as "transportation services and resources that are shared among users, either concurrently or one after another. This includes public transit; micromobility (bikesharing, scooter sharing); automobile-based modes (carsharing, rides on demand, and microtransit); and commute-based modes or ridesharing (carpooling and vanpooling"[1].

Shared mobility offers many benefits: it provides more mobility choices for residents and visitors, offers first and last mile trip connections, reduces traffic congestion, lowers emissions, reduces individual's transportation costs, and improves transportation network efficiency.

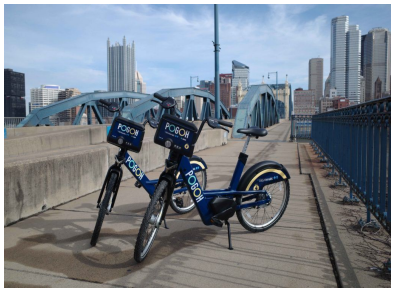
What is the Pittsburgh Mobility Collective?

The PMC is a partnership of transportation service providers, led by DOMI, designed to ensure that shared mobility services are deployed equitably, efficiently, and cohesively. The PMC is leveraging public-private partnerships to build a better transportation system that integrates Pittsburgh Regional Transit services, shared electric scooters and bicycles, expanded carshare, and carpool services, using a simple trip planning mobile app and on-street locations known as "Mobility Hubs."

Why the Pittsburgh Mobility Collective?

Pittsburgh officials, seeing the wide variety of new technologies as well as the challenges and benefits that they each provide, recognized that the City needed a thoughtfully designed program that would regulate and coordinate these options around transit to provide the best result for improving mobility. Therefore, DOMI issued a Request for Proposals (RFP) to form a collective of mobility operators. This collective was intended to proactively address the issues other cities faced working with micromobility providers. By selecting one provider for each mode, DOMI is able to streamline regulations, enforcement, and coordination, as well as leverage unique financial and infrastructure investments from mobility operators.

The rapid deployment of new dockless mobility options in other cities around the country from multiple operators, with no communication between them, created a tangle of new challenges for regulators. The task of managing multiple agreements, policies, and regulations as well as tracking compliance across all of the different operators left transportation officials struggling to keep up. Riders were also left to sort through a jumble of different options, each with a different app and set of rules.



Principles of the PMC

The PMC has six guiding principles: Simple & Affordable, Sustainable, Growth-Oriented, Inclusive, Equitable, and Innovative.

Department of Mobility and Infrastructure Goals

1. No one dies or is seriously injured traveling on city streets
2. Every household in Pittsburgh can access fresh fruits and vegetables within 20 minutes travel of home, without the requirement of a private vehicle
3. All trips less than 1 mile are easily and enjoyably achieved by non-vehicle travel
4. No household must spend more than 45% of household income to satisfy basic housing, transportation and energy needs
5. The combined cost of transportation, housing and energy does not exceed 45% of household income for any income group
6. The design, maintenance and operation of city streets reflects the values of our community

Goals of Move PGH

The goals of Move PGH were informed by the principles of the PMC and DOMI's goals. Goals for the program were developed throughout the initial planning process of Move PGH, including meetings with individual operators, community meetings, and other stakeholders. The findings of this report will detail the ways we measure progress towards these goals.

1 Make it easy and cost-effective for people who live or work in Pittsburgh to choose the best mobility option for a variety of trips, without reliance on personal vehicles.

2 Increase access to Pittsburgh's transit system.

3 Create more travel options, including access to shared mobility modes, for communities that have been traditionally underserved by transit.

4 Reduce overall vehicle miles traveled in Pittsburgh, without reducing the number of trips taken.

5 Invest in improvements to Pittsburgh's transportation infrastructure for all road users, especially those who do not use a personal car.

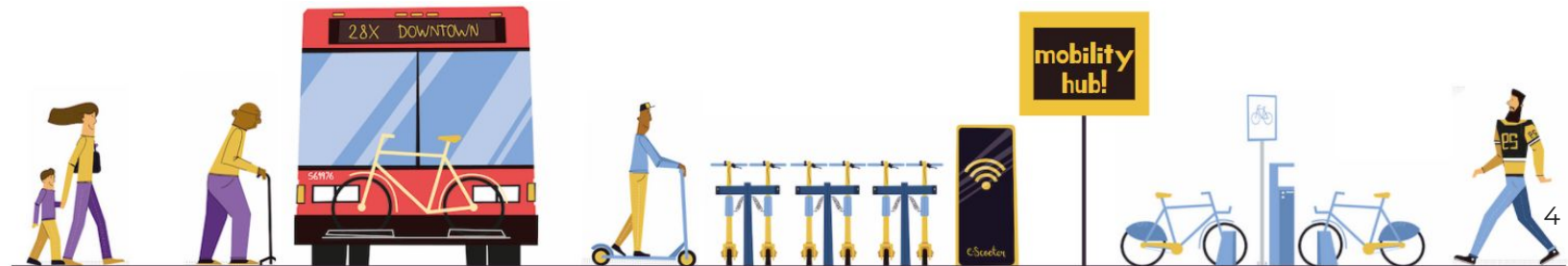
6 Engage Pittsburgh residents and stakeholders in the design and deployment of emerging technologies and services.

7 Offer a seamless and integrated suite of transportation technologies and services for a range of needs.

8 Demonstrate the potential of a public-private approach to operating a multimodal shared mobility platform.

9 Reduce tailpipe emissions associated with the transportation sector in order to improve local air quality and decrease rates of respiratory diseases associated with such emissions.

10 Contribute to the just transition away from a carbon-based transportation sector by prioritizing communities that have been underserved by the current transportation system.



Who is the PMC?

City of Pittsburgh - Department of Mobility & Infrastructure

The City of Pittsburgh Department of Mobility and Infrastructure (DOMI) is responsible for the transportation of people and goods throughout the City of Pittsburgh, as well as managing the operation of and access to the public right-of-way (the sidewalks, curbs, streets, and bridges that make up our network). As the organizer of the PMC, DOMI is responsible for all permitting and policy for our micro- and shared- mobility operators. The mission of the Department is to provide the physical infrastructure that enables residents and visitors to have the social and economic mobility that they deserve.

POGOH

POGOH, formerly known as Healthy Ride, is Pittsburgh's bike share program. POGOH operates dozens of stations and hundreds of bikes throughout the city and in 2022 launched a fleet of electric-assist bikes. As a non-profit, POGOH's mission is to provide Pittsburgh with a joyful, sustainable, and affordable mobility service for all residents and visitors. As the system continues to grow, POGOH remains dedicated to creating an inclusive, equitable bike share program that works with the Pittsburgh community to identify and address the needs of our unique and beautiful city.

Pittsburgh Regional Transit (PRT)

Pittsburgh Regional Transit, formerly Port Authority of Allegheny County (PAAC), has been the operator of public transportation services in Pittsburgh and surrounding municipalities since 1964. The agency owns and maintains 18.4 miles of busways (Martin Luther King Jr. East, West, and South), 26.2 miles of light rail, two inclines, and over 80 bridges. PRT operates over 700 buses and 80 light rail cars providing more than 62 million rides annually. It also oversees ACCESS, a coordinated, shared-ride paratransit service, which has been providing door-to-door, advanced reservation transportation in Allegheny County since 1979.

Spin

Founded in San Francisco in 2016, Spin operates dockless mobility systems in over 70 cities and campuses throughout the United States. Spin's core team is composed of engineers, designers, operators, lawyers, and public policymakers with deep and broad experience in the technology and transportation sectors. Spin is committed to a partnership approach, which means tailoring each program to meet each market's unique needs. Nowhere is that approach more epitomized than the PMC, a first-of-its-kind effort to incorporate micromobility and other multimodal services into the City's broader transportation network.

Scoobi

Scoobi was founded in Pittsburgh in 2018 and provided residents with on-demand mobility using e-mopeds. After four years of operations, Scoobi shutdown in June 2022.

Waze Carpool

At its core, Waze is the world's largest crowdsourced navigation app. While carpooling isn't new, Waze Carpool is a fresh way to share the road and the cost of commuting. This service lets you choose to drive or ride with people already going your way. Use the Waze app to drive, and the Waze Carpool app to catch a ride.

Zipcar

Zipcar is the world's leading car-sharing network and has played an influential role in improving city life since 2000. Found in nearly 500 cities and towns, and 600 university campuses across the globe, Zipcar is driven by a mission: to enable simple and responsible urban living. Zipcar provides members easy access to a car without the cost and hassle of owning one.

Technological Support of the PMC

Transit App

Transit is the official app of the PMC and Move PGH. Users can easily navigate shared mobility with accurate real-time predictions, simple multimodal trip planning, offline trip planning, and step-by-step navigation.

Swiftmile

As an innovator in the mobility space, the team is excited to bring our charging infrastructure to the City of Pittsburgh. At the core, Swiftmile helps deploy electric charging stations in or adjacent to the public right of way, further improving the clean energy benefits of micromobility. Additionally, stations create a sense of permanency and assuredness that members of the community will always have safe, charged transportation waiting for them.

Populus

Populus is a transportation technology company that helps cities and private mobility providers share data and track outcomes of changes in policy or infrastructure.

Masabi

Masabi is bringing Fare Payments-as-a-Service to public transit agencies of all sizes around the globe, enabling them to receive the latest fare payment innovations quickly, using a platform which is constantly updating and adding new features.

Other Supporting Actors

InnovatePGH

InnovatePGH is a next generation public-private partnership built to accelerate The partnership is powered by a coalition of civic leaders representing Allegheny County, the City of Pittsburgh, the University of Pittsburgh, Carnegie Mellon University, UPMC, the Allegheny Conference on Community Development and regional philanthropic institutions.Pittsburgh's status as a global innovation city. InnovatePGH provides Move PGH additional staff support and acts as the programs fiscal conduit.

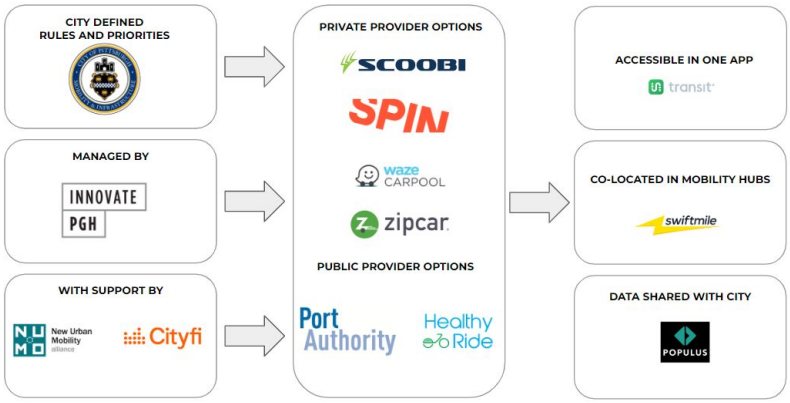
New Urban Mobility Alliance (NUMO)

NUMO is a global alliance that channels tech-based disruptions in urban transport to create joyful cities where sustainable and just mobility is the new normal. As an outgrowth of the Shared Mobility Principles for Livable Cities, NUMO supports cities as they progress toward broad adaptation goals, including strategically integrating new mobility options with existing transit services.

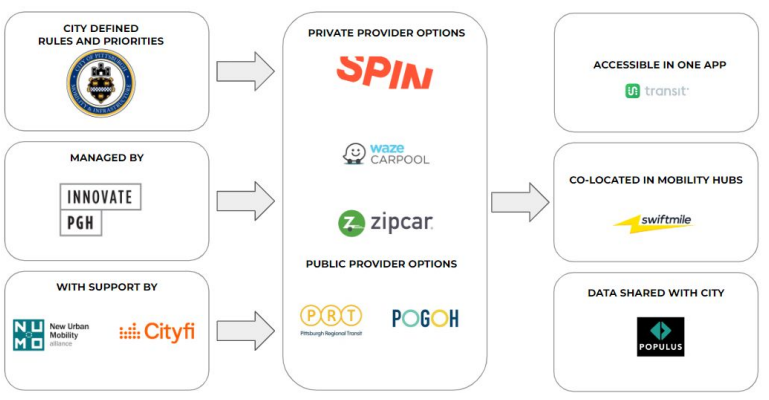
Cityfi

Cityfi is a consultancy that helps translate civic complexity into smart strategies in a rapidly urbanizing world with an approach centered around public policy, urban design, economic development, capacity-building, and civic innovation to achieve measurable outcomes to create more liveable, regenerative and equitable communities.

Founding Members



Current Members

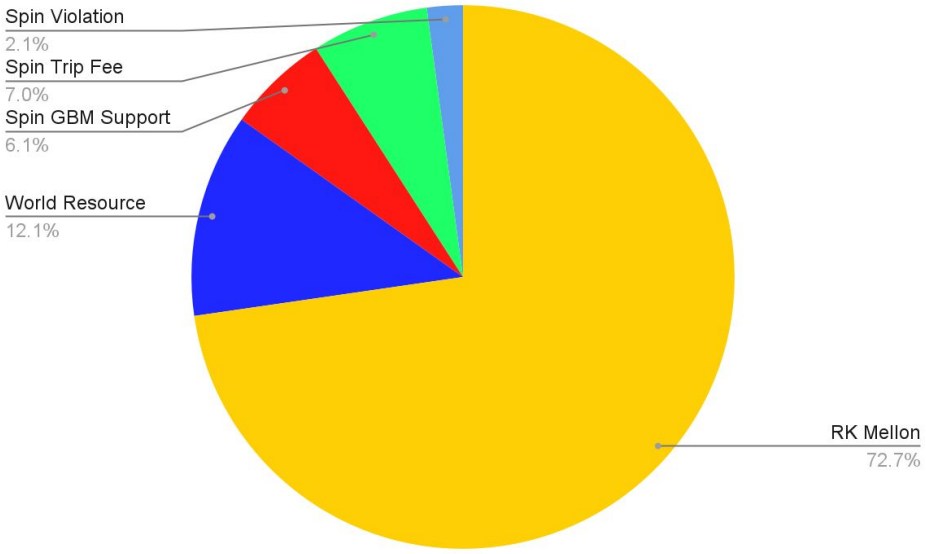


Funding Move PGH

Move PGH is made possible from philanthropic grants from the Richard King Mellon Foundation and the World Resources Institute. These grants total $700,000 and fund staffing and resources needed to make the program possible. DOMI has chosen local nonprofit InnovatePGH as the fiscal sponsor to Move PGH. This means InnovatePGH received grant funding directly from foundations to utilize various aspects of the program's management at the ultimate discretion of DOMI.

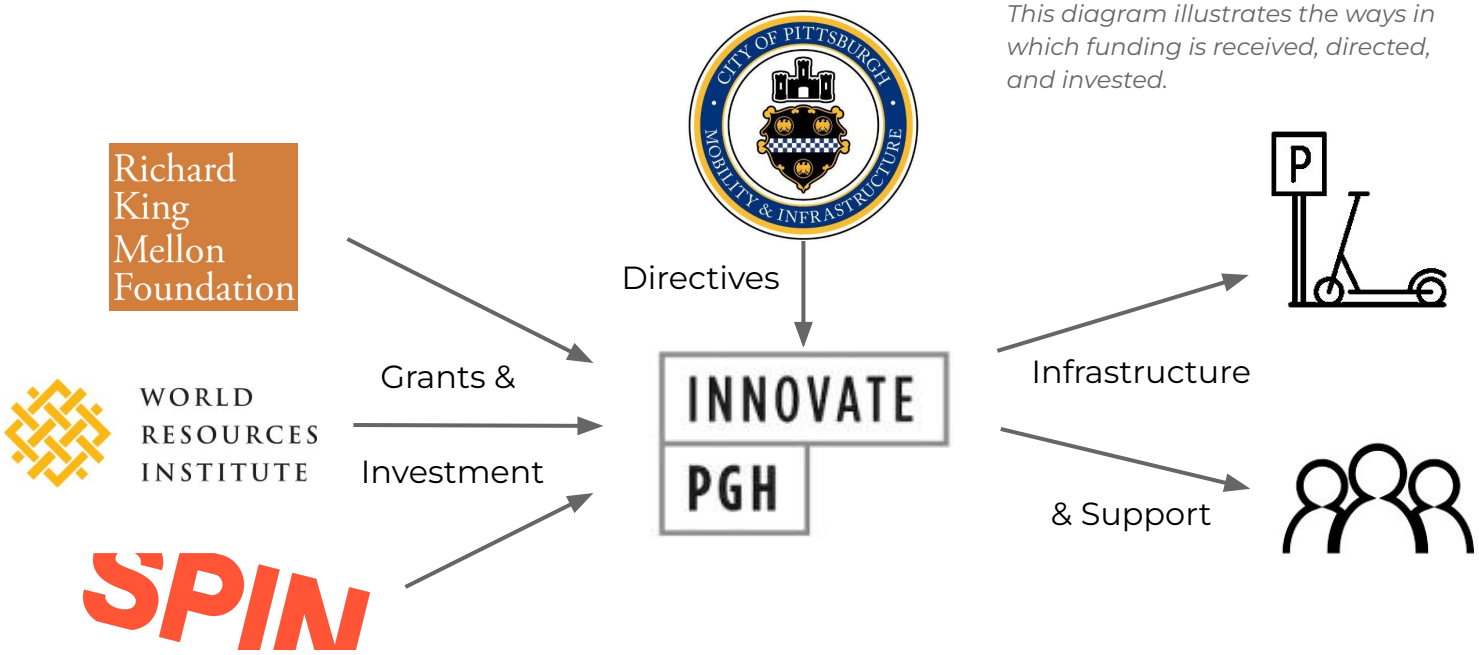
Specifically, the grant funding pays for a program director position at Innovate PGH, installation of scooter parking corrals, program marketing materials, and mobility resources within the Guaranteed Basic Mobility pilot. This grant has also been used to financially support POGOH's integration into the Transit App.

The City of Pittsburgh does not pay any operator, including Spin and POGOH, to operate in the City. In fact, Spin pays a trip fee of $0.10 per scooter trip to fund infrastructure that supports the program. DOMI requires Spin to pay a fee for each violation they accrue related to failures to meet distribution requirements and other policies, which is set aside to install infrastructure such as scooter corrals and bike racks. Spin further invests in the Move PGH program by installing and maintaining mobility hubs.



This chart shows the breakdown of funding of the Move PGH program. As of July 2022, the total amount invested in the program was $825,187.

This diagram illustrates the ways in which funding is received, directed, and invested.



COMMUNITY ENGAGEMENT

To create an offering that serves the needs of all Pittsburghers, DOMI and the PMC conducted numerous engagement efforts to prepare the program for launch.

Stakeholder Interviews

As the PMC was being formed as a concept, DOMI worked with NUMO to conduct dozens of interviews with governmental entities, advocacy groups, transportation specialists, and other community leaders. The conversations about the potential of a transportation coalition and how it could potentially take form were instrumental to designing the PMC and Move PGH.

Online Engagement

As the members of the PMC began preparing for launch, DOMI engaged with the public in a variety of ways. The Move PGH website and corresponding social media accounts were created to provide information on the purpose and mission of the program, as well as garner feedback using an online survey. DOMI also created an Engage PGH page dedicated to the same purpose.

Public Information Sessions

In the fall of 2020, DOMI hosted public information sessions for community groups, advocacy groups, and other stakeholders to learn more about Move PGH and its impending benefits to shared transportation. This was a final opportunity for the PMC and DOMI officials to gather feedback to adjust the project's policy and implementation before launch.

The PMC continues to spur conversations with communities - DOMI continues to share information about Move PGH and listen to recommendations on how to continually improve each aspect of the program.

Community Tabling

Both Spin and POGOH have staff dedicated to tabling at community events, allowing for prospective riders to learn about their services, test ride an e-scooter or bike, sign up, and potentially receive give-aways such as helmets. Over the past year, each service has attended dozens of events, helping Pittsburgh residents to learn the value in using shared micromobility. Spin has held 28 such events in the first year of the program, with community-based co-hosts including Northside Leadership Council, Squirrel Hill Urban Coalition, Pittsburgh Police, Allies for Health + Wellbeing, and more.

POGOH Community Coalition

Pittsburgh Bike Share has been a leader within the PMC in using quality community engagement to inform critical components of their new and improved system. By convening a Community Coalition composed of diverse stakeholders including neighborhood groups, advocates, government officials, and other interested community members, POGOH gained valuable feedback over the past two years which guided specific decisions on station siting, membership pricing, and numerous other programmatic values. Move PGH was frequently present at these convenings, gathering feedback on the program.

Community Meetings

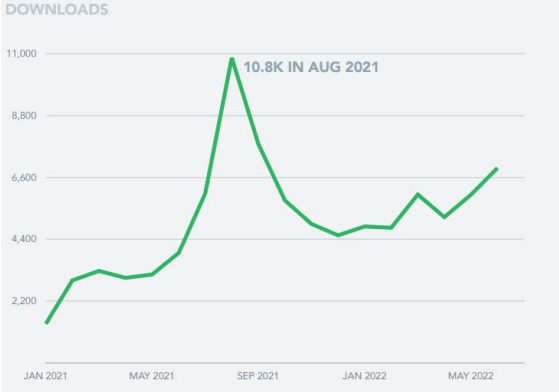
Since Move PGH's launch, DOMI continues to engage communities, aiming to understand how the program can be specifically positioned to improve shared mobility in their neighborhood while sharing information on how to take advantage of Move PGH's resources. This engagement often takes form as public focums and is most commonly driven by efforts to introduce mobility hubs in centralized, easily-accessible locations for each neighborhood. Although DOMI presents a limited amount of options in qualifying locations, Move PGH depends on communities' personal perspective of their locality to consider variables unforeseen by planners and ultimately select the optimal location.

About Transit

Transit is a mobile app providing real-time public transit data. The app functions in over 175 metropolitan areas around the world. In Pittsburgh, Transit shows real-time bus and incline arrivals, POGOH, Spin, Zipcar, and mobility hub locations. Transit also supports mobile ticketing, a Pittsburgh user can purchase mobile bus passes and just recently, unlock a POGOH bike.

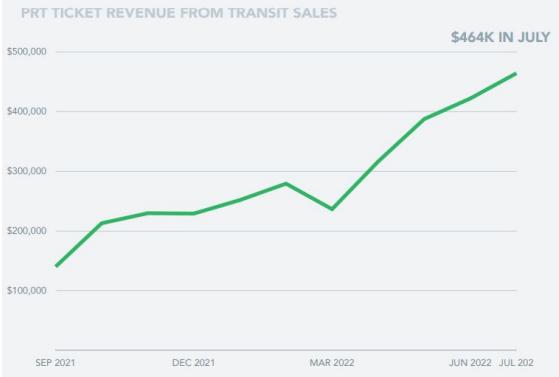
Downloads & Usage

In just July 2022, Transit saw over 63,000 unique active users and 6.2 million individual sessions. This usage exceeds pre-pandemic numbers despite seeing an overall 55% drop in PRT ridership since 2019. An estimated 42% of PRT riders use the Transit app on any given day. With over 10,000 downloads in just one month, downloads for the Transit app peaked in August 2021, just after the launch of Move PGH. Since the fall of 2021, Transit app downloads continue to trend upwards on a monthly basis.



PRT Mobile Bus Passes

Shortly after the Move PGH launch, PRT unveiled digital ticketing options for both the Transit App and their own Ready2Ride app. Riders can use a credit or debit to upload funds to either app and purchase each standard pass offered by PRT. Digital payment is currently available on buses and inclines and is expected to be on light rail vehicles in late 2022. In July 2022 alone, Transit saw $464,000 in PRT mobile ticket sales, accounting for approximately 75% of all mobile ticket purchases for PRT. Overall, PRT has seen $3.25 million in revenue from mobile tickets sold through the Transit app.



POGOH Integration

Starting in August 2022, POGOH bikes can now be unlocked using the Transit app. For now, users will need to enter a code from the app on the docking station to unlock the bike, but in the future, riders can unlock a bike by scanning a QR code.

User Demographics

In surveys of its users, Transit finds that respondents are more likely to be non-white, and more likely to earn low incomes, than Pittsburgh residents overall. In April 2022, for example, 35% of Transit's survey respondents identified as Black or African American alone, compared to 23% of Pittsburgh residents in the US Census. A similar pattern can be seen for Hispanic residents (5.6% among Transit survey respondents, compared to 3.4% in the US Census) and people who chose more than one race (6.5% vs. 3.6%, respectively). Just 53% of Transit's survey respondents identified as white or European American, compared to 66% of the city's overall population. More than 65% of Transit app survey respondents also reported not owning a car.

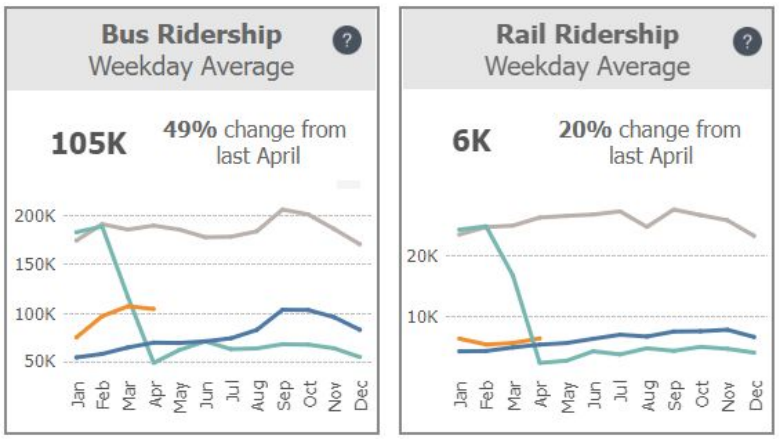
Transit also reaches lower-income Pittsburgh residents, who make up a significant portion of its user base, according to the April 2022 survey:

- 17.6% of respondents to Transit's survey reported a household income of less than $10,000 per year
- 37.5% reported a household income of $10,000-$39,000
- 26% reported earnings over $40,000 per year
- 18.8% of those who selected to respond to demographic questions preferred not to say their household income

About PRT

While it's gone by many names over the years, Pittsburgh Regional Transit established the first unified transit system in Allegheny County in 1964. Currently, PRT has over 700 buses that serve 96 bus routes, 80 light rail vehicles serving three major routes, and two funiculars. PRT also manages local paratransit services. Prior to the pandemic, PRT saw ridership of over 62 million rides per year, with 220,000 rides per weekday on average.

Ridership Trends



Recent PRT bus ridership levels are currently holding at around 55% of typical ridership rates from 2019 and before, continuing a trend of gradual ridership increases since 2020. However, ridership trends have been inconsistent across sectors in the PRT system. Although typical downtown commute rates have been slow to recover, local service has seen reasonable increases, introducing an opportunity for PRT to shift service away from peak commute hours to other regions of growing demand. Student ridership has increased as PRT expanded their U-Pass program. allowing Carlow, Duquesne, and Point Park Universities to pay a discounted rate for unlimited student rides.

Service Reductions

The fare-box deficit along with employee shortages have led to a 4% reduction in service in recent months. This change was implemented to address issues of missed trips, which peaked at about 14% in March 2022. After the organization's vaccination mandate went into effect in March, hundreds of employees were suspended pending disciplinary hearings for failing to comply with this policy. An increase in retirements has also contributed to a driver shortage[6].

Fare Policy Change

In 2022, PRT amended their fare policy to eliminate transfer fees when paying with connectcards, prepaid tickets, or digital payment, allowing riders to take an unlimited amount of trips on buses, trains, or inclines for a span of three hours. This change reduces costs for riders with some of the most difficult commutes, where transferring between multiple lines is required.

Rebranding

On June 9, 2022, the announcement was made that the Port Authority of Allegheny County would now be known as Pittbsurgh Regional Transit, or PRT. This name change also comes with the announcement that buses will be repainted to a consistent, easy to recognize color scheme. The change to PRT was made to recognize the new direction of the organization - "a broader effort to rethink public transportation in the entire Pittsburgh metro area."[2]

NEXTransit Plan

After many months of collecting meaningful engagement and feedback through advisory groups, online engagement, and in-person meeting and events, the PRT released their final version of NextTransit, their 25-year Long-Range Transportation Plan in September 2021.. Katharine Kelleman, PRT's CEO, states that NextTransit "provides a roadmap for the policies, programs, and projects that are needed to move us toward a future Allegheny County that is accessible, efficient, environmentally sustainable, and equitable.The 79-page document organizes its many findings and propositions into sections dedicated to travel demand analysis, policy and programs recommendations, project recommendations, and plans for funding network improvements.

About POGOH

POGOH, formally known as Healthy Ride, is a new name for Pittsburgh's longest-running micromobility service. Offering a newly launched docked bikeshare with a mixed fleet of pedalcycles and e-bikes, POGOH is committed to creating an inclusive service that works for all Pittsburghers.

Re-Launch Challenges

Intense interest in e-bikes and the impending 3G shut down led Healthy Ride to relaunch and brand in spring 2022 as POGOH. While Pittsburgh is excited to have e-bikes, the transition has had its challenges. The re-launch was on a tight deadline as the previous system relied on 3G technology. With the 3G shutdown in March 2022, POGOH was on a tight timeline to launch the new system before the old system was rendered unusable. Furthermore, supply chain issues caused delays in the delivery of materials needed to install the new stations as well as the bikes themselves.

Pricing Changes

With the relaunch as POGOH, adjustments were made to the fee structure and schedule. This chart shows POGOH's new fee schedule, which offers more flexible memberships and passes.

**Available to those who qualify for government assistance*

Type of Pass	Cost	What's Included
Annual Membership	$120 / year	Unlimited 30 minute rides
Mobility Justice Membership*	$10 / year	Unlimited 30 minute rides
Flex Pass	$20 / year	5 hours of ride time
Standard Bike Trip	$3.50 / 30 minutes	
E-Assist Bike Trip	$5 / 30 minutes	

Equipment Improvement

The new POGOH bicycles feature a lighter frame, three gears, a basket, an adjustable seat, 24" tires, front and rear lights, fenders, and roller brakes. Half of the fleet are e-bikes, which feature pedal assist. These bikes will not have a throttle like some e-bikes out there on the road; riders will still need to pedal to keep the bike moving. E-bikes can be returned at any station in the system, but will charge on-site at POGOH's electric stations throughout the city. POGOH's operations team can also switch out batteries on e-bikes right at the station to keep e-bikes consistently charged and available at any station.

HealthyRide
100 Stations
600 Bikes

POGOH
37 Stations Installed
38 More Stations Planned
18 Solar Powered Stations
186 Standard Bikes
186 E-Bikes

Ridership

POGOH ridership was steady throughout the summer and early fall of 202, nearing 1000 trips per day on multiple occasions. In December 2021, Healthy Ride began removing stations to prepare for the re-launch. This, coupled with colder and snowy weather, caused a sharp decline in ridership. With the official launch of POGOH in March 2022 and the subsequent installations of new stations, ridership began to steadily increase again during the Spring. However, as the full new fleet was not yet deployed, ridership had not returned to previous numbers by the end of the spring.

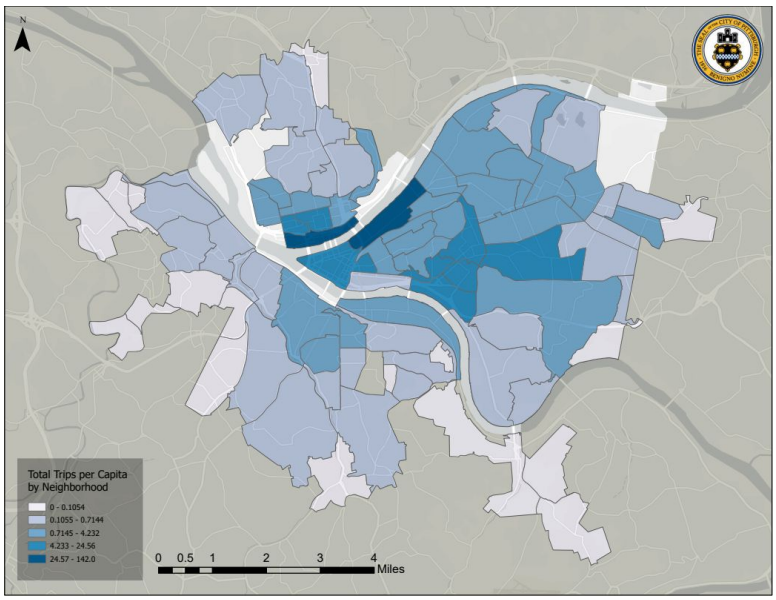
Spin E-Scooters

Through advocacy efforts tied to the PMC and Move PGH, the Pennsylvania Legislature authorized e-scooters in Pittsburgh for a two-year pilot beginning July 2021. The authorizing law requires a report be submitted to the state legislature at the end of the pilot to fully evaluate the outcomes of the program. This means continuously measuring and evaluating the pilot is critical to the formation of future policy at both a local and state level. At the conclusion of Spin's two-year pilot with the City of Pittsburgh, a report will determine the future of an e-scooter program in Pittsburgh, as well as the Commonwealth of Pennsylvania's choice of legalizing the new vehicle type.

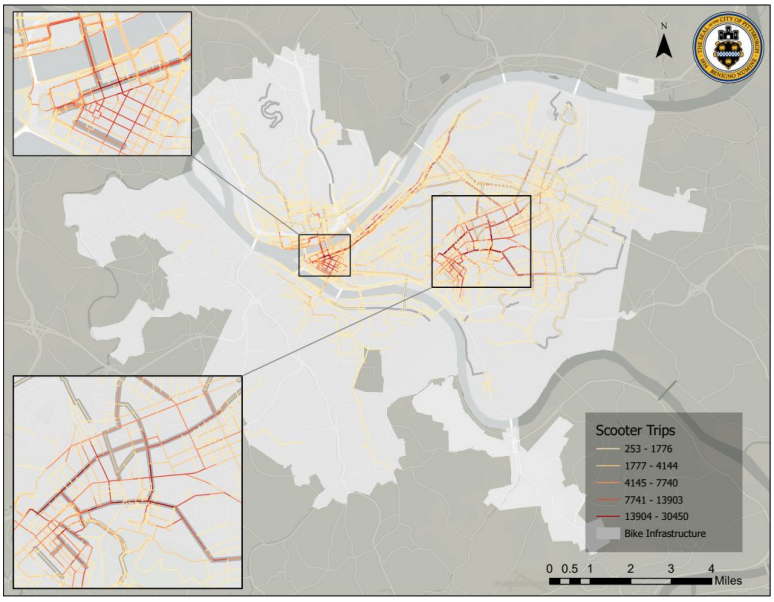
Ridership

Since July 9th of 2021, Spin has served **576,726** trips to **152,785** unique users in the Pittsburgh area. Here are some highlights of Spin ridership trends:

- Spin users in Pittsburgh ride an average of 1,614 trips per day.
- Daily ridership data shows us the peaks and valleys in demand seen throughout each week, with higher demand on weekends and moderate demand on weekdays.
- Lower ridership can also correspond with holidays or days of inclement weather such as rain or snow. In colder months of the year, ridership peaked during warm or sunny days.
- Weekdays tend to have their ridership levels peak during evening commute hours. Such a pattern indicates use of e-scooters as a reliable commuting mode..
- Friday and Saturday nights tend to have their highest ridership later in the evening, typically between 7 PM and 11 PM.
- 55% of trips are under 1 mile, and 78% are under 1.5 miles. This trend distinguishes e-scooters' niche travel distance from other modes, where walking is typically preferred for shorter distances and driving or transit might be used for longer distances.
- The majority of trips are kept short, with 65% lasting less than 10 minutes, and 80% lasting less than 15.
- The most popular neighborhoods for scooter trips are primarily in the east end and in other relatively flat areas of the city. However, hilly areas such as Mount Washington and the Hill District see high rates of scooter usage as well.
- The overlap between bike(+) infrastructure and scooter routes shows how bike lanes can be used by many different modes of micromobility. Particularly in dense areas, like Downtown and Oakland, bike lanes offer a safe lane for more vulnerable road users.



Trips by Neighborhood Per Capita (July 2021-June 2022)



Spin Trip Routes and Bike Infrastructure (July 2021-June 2022)

Deployments and Utilization

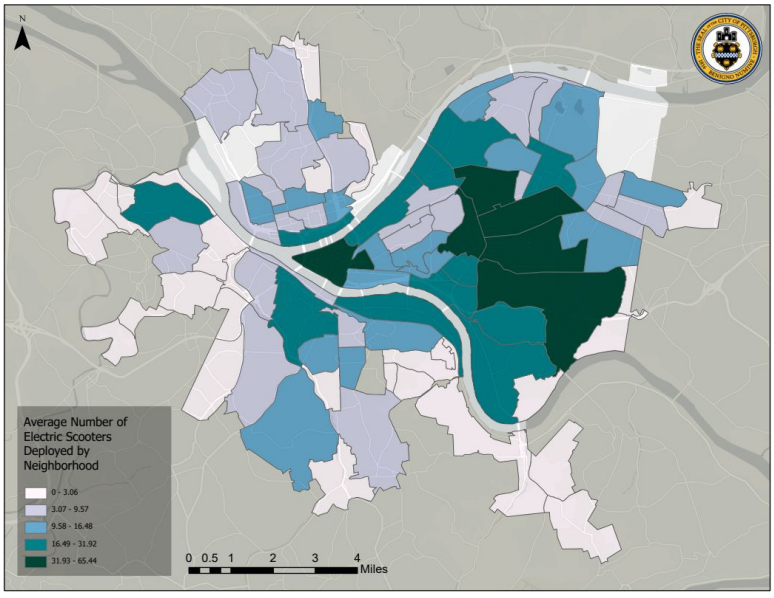
For the first 3 months of operation, DOMI permitted a fleet cap of 1,000 vehicles to allow DOMI to monitor demand before increasing the scooter supply accordingly. After seeing consistently high ridership levels immediately after launch, it was clear there was outsized demand for the new mode, leading DOMI to amend the operational permit to allow up to 1,500 e-scooters at a time. Any increase in the fleet cap is preceded by an evaluation to assess whether Spin has met specific criteria to guarantee that an increase in vehicles is warranted.

As long as Spin fulfills specific deployment requirements for distributing e-scooters throughout the city, the company may allow the fleet size to fluctuate according to apparent demand of rides. As ridership gradually fell in late fall of 2021, Spin reduced their fleet size to approximately half of the fleet cap to match lower winter demand. DOMI may also request that Spin pause their operations in anticipation extreme weather events.

Aside from looking at ridership to determine demand for e-scooters in a given area, DOMI tracks utilization as well. Utilization is a factor determined by calculating the average number of trips ridden per vehicle per day. For example, if a neighborhood experienced 1,000 trips taken in an area with 10 e-scooters on average over a span of 30 days, the utilization would equal 3.33. The ideal utilization is between one and two trips per day per e-scooter.

Deployment Zones

Deployment zones are a common tool used to ensure vehicles are deployed equitably throughout a municipality. DOMI designated 21 unique geographic zones to align with the specific physical, cultural, and demographic trends of each city region. Of these, seven are access zones, in which a larger percentage of the fleet must be deployed. DOMI requires 33% of Spin's fleet to be committed to fulfilling equitable deployment requirements, allowing the remaining 67% to be allocated at Spin's discretion.

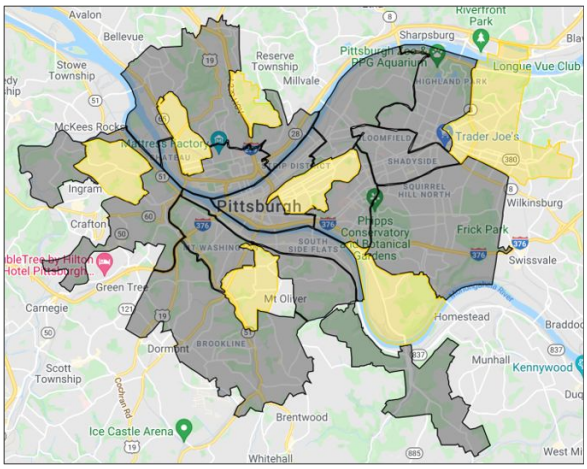


Map of Average Scooter Distribution by Neighborhood

Deployment Zone	Minimum Percentage of Fleet
Central East End	1%
Hazelwood	2%
Hill District	3%
Hilltop	4%
Homewood	5%
Manchester	2%
North Hills	3%
Northside	1%
Northview Heights	2%
Oakland	1%
South Hills	2%
Southside	1%
Squirrel Hill	1%
Upper East End	2%
West End	3%

Equity

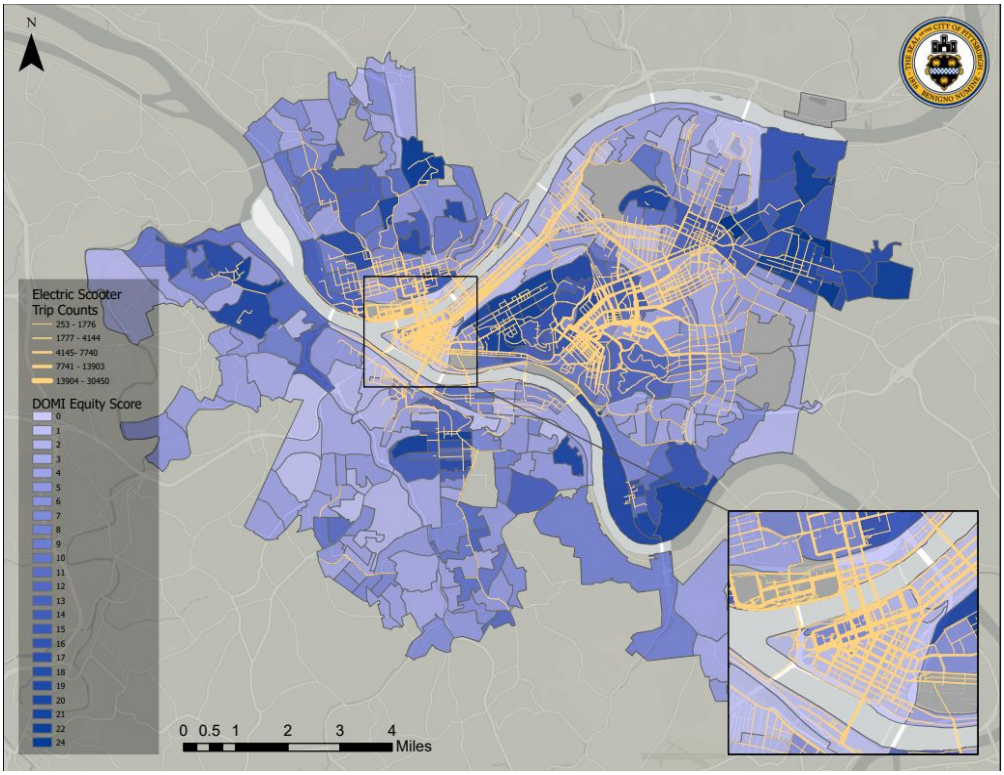
In October 2021, Spin and DOMI worked to introduce "Access Zones" throughout the city. These zones, which were identified by DOMI using an equity score, help to identify populations with outsized barriers to accessing transportation. These equity scores take into account an area's ethnicity, average income, car-ownership rates, and other demographic factors to demonstrate the level of need for the community. Riders who start their trip within an Access Zone receive a 25% discount off of their total trip fee.



Spin Access Zones

Spin is invested in making sure everyone who wants to rent a scooter can easily do so. The company's "Spin Access" programs helps to do this by making their service accessible to populations without smartphones, mobile location services, or a credit card. Pittsburghers who qualify for governmental low-income assistance programs are able to receive a 75% discount on every trip after signing up for Spin Access. 186 Pittsburghers are currently signed up for Spin Access. So far, Spin Access users have taken over 4,000 trips.

These programs support Move PGH's goal of making mobility more accessible and affordable and ensuring that those in historically underserved areas have access to the transportation options they need. The map below shows common scooter trip routes as compared to DOMI's equity score. In areas identified as high need, like the greater Hill District and Homewood, scooter usage is high. These neighborhoods also see generally moderate ridership per capita.



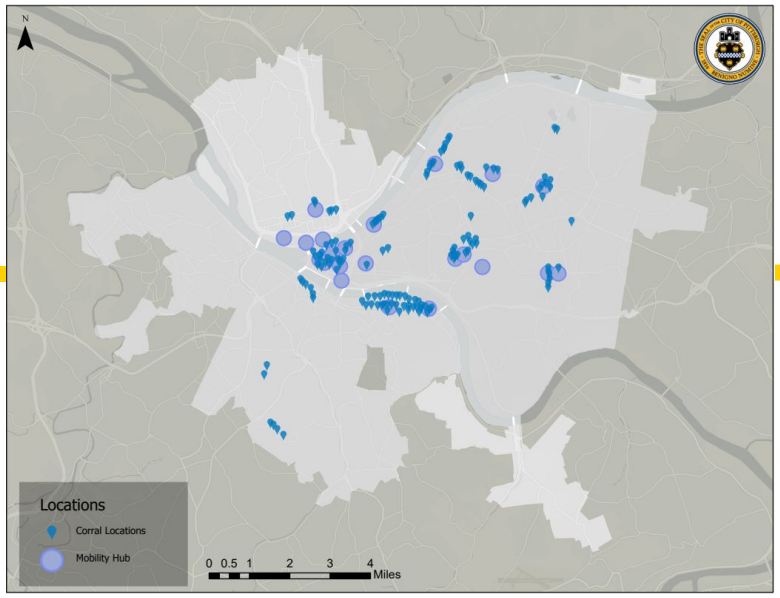
Spin Trip Routes and DOMI Equity Score (July 2021-June 2022)

Corral Management

DOMI knew that creating a system that requires compliant scooter parking would be critical to the program's success. Taking into account accessibility, DOMI decided to entirely restrict scooters from parking on sidewalks, a non-traditional approach compared to other cities. To help enforce this behavior, multiple no-parking zones were implemented. In these zones, riders must park scooters in a corral at or at a hub. DOMI and Spin have installed over 150 corrals so far, with more expected to be installed in fall 2022.

Mobility Hub Management

Spin has committed to a goal of installing 50 Swiftmile charging stations throughout the City by the end of the pilot. These "Mobility Hubs" provide a $1 future discount to riders who park there, while also displaying real-time transit arrival information on its digital screen. There are currently 21 charging stations installed, with more expected to be installed in fall 2022. However, these charging stations are more challenging to install than corrals, as hard-wiring any type of equipment to the electrical grid typical requires a significant amount of planning and investment.



Map of Existing Mobility Hubs and Parking Corrals (June 2022)

Reported Complaints and Injuries

Residents can contact Spin via email, app, and phone, or through the City's 311 service. Requests broadly fall into six categories: accident or injury, damaged vehicle, improper parking, improper riding, ride issue, and other. Damaged vehicle issues include reports of dead or low battery. Ride issues consist of billing questions, app functionality, account questions, and the like. The most common request, about 40% of all requests to Spin, is ride issues, followed by improper parking, which accounts for just under 30% of requests. Overall, support requests dramatically peaked in the early days of the program, decreased over the winter months, and have risen slightly during the high ridership summer season.

It is important to note that not all requests submitted to Spin are the result of or indication of a violation. For example, it is common for residents to submit requests asking for scooters to be removed from the parking lane, as they do not know that scooters are permitted to be parked in the parking lane. Furthermore, many requests classified as accident or injury represent instances in which a driver has hit a correctly parked scooter. We acknowledge the need for more general education surrounding scooter use and parking rules, not just for riders, but also for all residents.

Compliance

For the first year of their operations, Spin met 90% of their daily deployment requirements. Over the winter months in the beginning of 2022, Spin accumulated a total of 100 violations for failing to meet deployment requirements in some zones. One violation represents a tally of 25 vehicle deployment deficits. These requirements were generally missed by less than one fleet percentage point per zone. After identifying an issue in Spin's internal distribution tracker, Spin corrected the error and has earned a much better track record in recent months, as shown by only 6 violations accrued in the spring of 2022. As required, Spin offset their violation tally by paying to maintain scooter corral infrastructure.

Geofencing

Spin is required to maintain a geofencing map which designates areas throughout Pittsburgh as off-limits to scooter riding or parking. Although most geofence boundaries were already in place for Spin's launch, DOMI and Spin continue to introduce additional geofencing at the request of landowners and the community.

There are no-ride, no-parking, and limited speed zones. In no-parking zones, scooters must be parked at a mobility hub or corral, rather than on street. In limited speed zones, scooters are automatically limited to a speed below the typical top speed of 15 mph.

Spin User Survey - Demographics

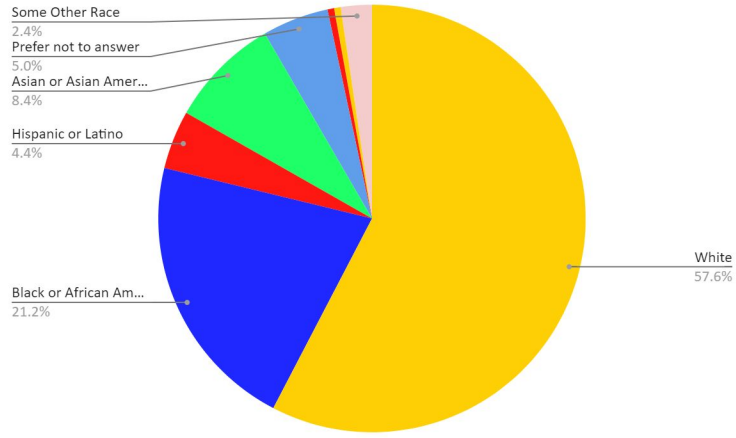
In June 2022, DOMI and Spin sent out a survey to all Spin users registered in Pittsburgh. **2212 responses** were received.

DOMI was excited to see that the racial demographics of respondents to the survey nearly exactly match that of the larger Pittsburgh population. This, and the high response rate, demonstrates that the survey is representative and Spin is equitably serving our community. Almost half of Spin users are between the ages of 18 and 24 and men are over-represented.

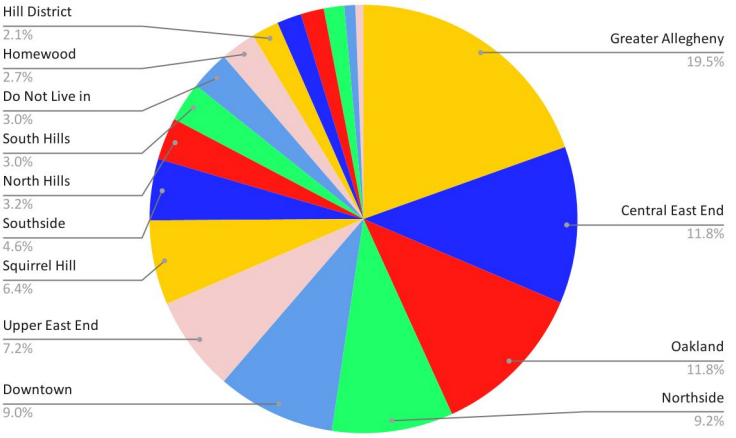
Students, both full time and part time, makeup over 40% of ridership, which is also reflected in the most popular trip areas near universities. The higher rates of student ridership is also reflected in the reported incomes, which skew lower than Pittsburgh's area median income. High student ridership shows on scooters can offer an affordable and easy alternative to driving to campus, alleviating parking and traffic issues in the dense Oakland area.

Users were asked to identify which neighborhood or town they live in. Locations within Pittsburgh were coded by distribution zone. Other locations in Allegheny County were aggregated into Greater Allegheny County. Approximately half of users live in the Central East End, Oakland, Northside, Downtown, or the Upper East End. As some of the most densely populated areas in the City, it follows that the East End and Oakland areas are well represented. However, this shows that residents of Downtown are over-represented compared to the population at large, presumably due to the high level of deployment of scooters in Downtown. While most respondents were from Pittsburgh, 35% were from Greater Allegheny County. The most common other municipalities within Allegheny County where those closest to Pittsburgh: Carnegie (12), McKee's Rocks (10), Wilkinsburg (9), and Monroeville (8). This demonstrates how every day activities, like community or shopping, don't follow municipal boundaries. For scooters to be a reliable transportation option, they need to be able to get all residents and visitors from point A to point B, even if that means leaving the City proper.

Race



Neighborhood



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Spin User Survey - Ridership Statistics and Trip Cases

Spin users were also asked about why they use Spin and their usage of other modes. Spin users report approximately the same rates of access to a privately owned car as the general population, although it should be noted that responses may vary by neighborhood. Spin users report utilizing a private car far more than transit, with almost double the users using a private car daily compared to daily transit riders. Almost half of Spin users rarely or never use transit. Approximately 55% of Spin users use scooters fairly regularly, either every week, every other week, or once a month.

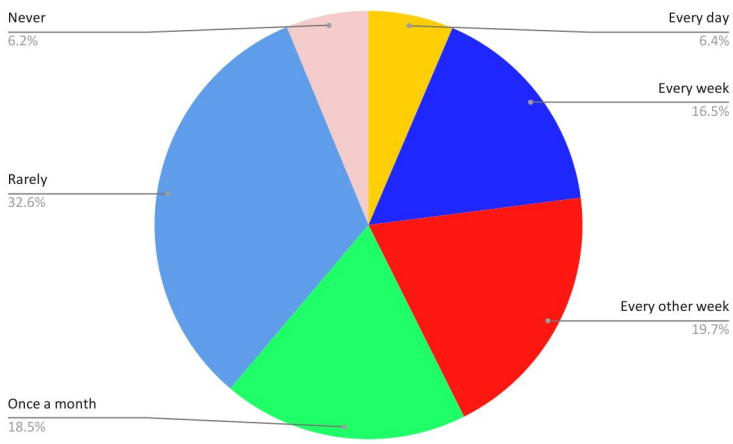
Personal modes of transportation, including private cars, personal bikes or other micromobility, and walking are the most common choices for essential trips. Transit is the most commonly used shared mobility mode for essential trips, although many users report choosing scooters over bike sharing.

35% of users reported that had scooters not been available, they would have used a private car. As most scooter trips are under 2 miles, this shows how effective micromobility is at reducing short distance single occupancy vehicle trips.

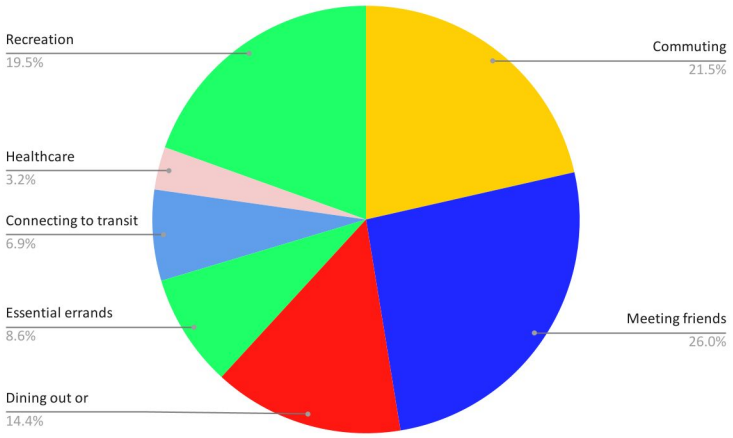
Almost 7% of users report using scooters to connect to transit, demonstrating how scooters can be used as a great first / last mile connector. The most common use for Spin trips, at about a quarter of all trips, is for social activities, although community and recreation represent about 20% of trips each as well.

Over half of respondents reported using the Transit app to plan or book their trip. We expect to see this number increase as additional modes are fully integrated into the app.

How often do you ride scooters?



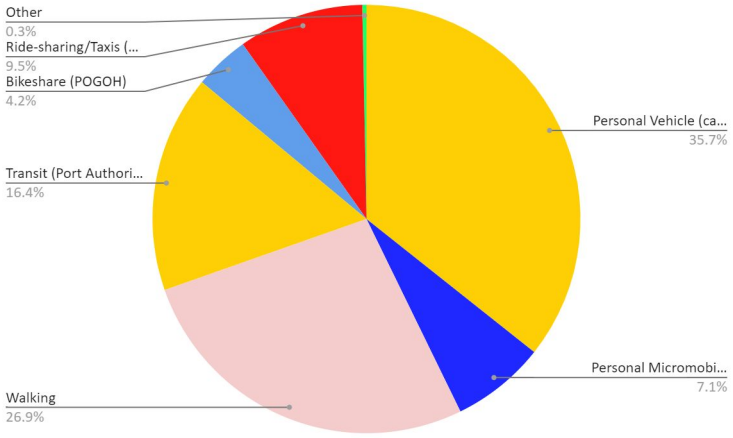
What trips do you most often use a scooter for?



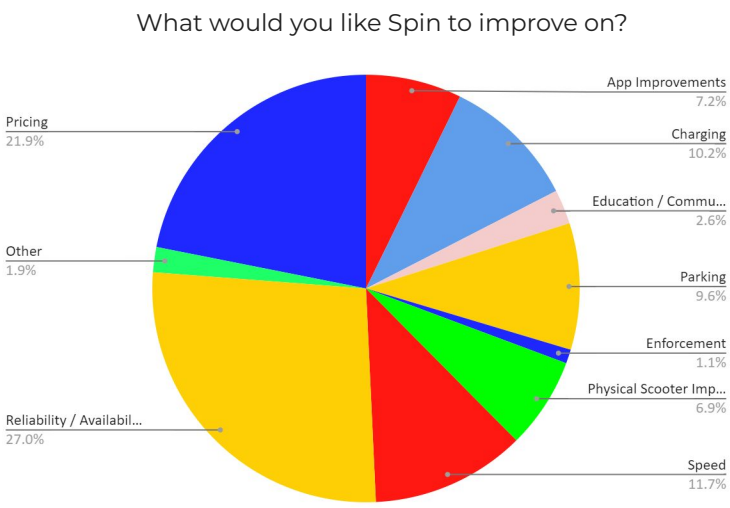
Spin User Survey - Additional Modes

991 users offered other mobility options they would like to see. 42% of users wanted to see more bike share, particularly with e-bikes. 16% of users wanted to see improved transit options, proposing expansions to light rail and trains, and also improved traditional bus route service. Nearly 15% of users recommended expanding Spin scooters. Almost 5% of users wanted to see a new moped offering to replace Scoobi. Other potential new modes proposed include seated scooters (2%), cargo bikes, e-skateboards, and hoverboards. Some users also suggest expansions to Zipcar and introducing other scooter operators.

What mode would you use if a scooter was not available?



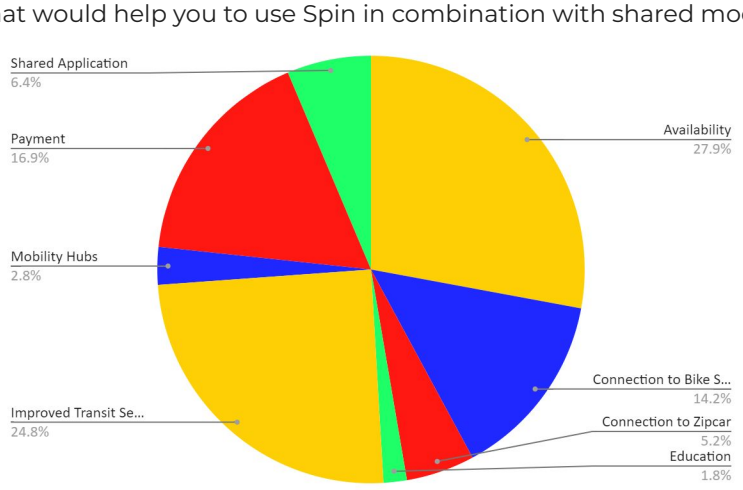
Spin User Survey - Improvements



1421 users responded with suggestions on how to improve Spin's operations in Pittsburgh. Responses were broken down into 9 categories:

- App Improvements - issues with unlocking scooters, bugs, payment options, and issued ending rides
- Charging - improving battery life, installation of more charging stations
- Education / Communication - ensuring all users know all rules for riding and parking scooters, creating maps of best routes and no parking / no riding zones
- Enforcement - correcting improperly parked scooters, enforcement of other rider rules
- Parking - concerns about no parking zones, installation of additional corrals, knowledge of where to park scooters
- Physical Scooter Improvements - improved maintenance and upkeep, additional modes such as seated scooters, and additional capabilities for navigation
- Pricing - general concerns scooters are too expensive, ideas for pass and discount programs
- Reliability and Availability - ensuring scooters can be reliably found throughout the city, calls to expand the program outside Pittsburgh limits
- Speed - desire to increase maximum speed, concerns around sudden changes in speed in slow-speed zones

Spin User Survey - Mode Shift



1054 users offered feedback on how Spin can better be used in connection with other modes. Responses were broken down into 9 categories:

- Availability - increase in distribution and number of scooters, ensuring scooters can be a reliable mode of transportation
- Connection to Bike Share - increase availability of POGOH stations and improve locations
- Connection to Zipcar - increase availability of Zipcar an improve locations
- Education - Need for understanding of how modes can be used together
- Improved Transit Service - improve trip frequency, location, and awareness of bus schedules and routes
- Mobility Hubs - need for hubs and scooter charging stations near transit
- Payment - need for unified payment system, bundling, and reduced fees
- Shared Application - need for all modes to be found in one app, integrations into existing apps like Google Maps
- Trip Planning - increased knowledge of bike(+) routes, making it easier to plan routes using multiple modes

SERVICE & ANALYSIS: ZIPCAR

Fleet Expansion

Although the pandemic first introduced some amount of uncertainty for anticipated carshare demand, Zipcar eventually experienced an uptick in utilization as users depended on the service for longer-distance rentals, often taking the cars out of the Pittsburgh for day or weekend-long trips. As a result, Zipcar was able to nearly double the size of their fleet in Pittsburgh in the summer of 2021. Additional locations were added throughout 2022.

Ridership

After a significant increase in vehicles introduced in the Pittsburgh market corresponding with Move PGH's launch, Zipcar began to see a dramatic increase in total reservations and hours reserved. The first quarter of 2022 yielded the highest total reservation hours of the past year despite a slight down-tick in total reservations. This shows that users generally prefer to reserve Zipcars for longer periods of time and longer distances.

Equity Goals

Currently, Zipcar serves a limited area within the City of Pittsburgh, deploying cars at their own discretion primarily in the Central Business District and East End neighborhoods. DOMI has been working consistently with Zipcar to expand their service area into other more diverse regions of the city, acknowledging that low-income households without access to a personal vehicle stand to benefit the most from a carshare service. In late 2021, Zipcar piloted multiple cars in the neighborhood of Manchester, characteristically different from their typical deployment areas. So far, the cars in this location have been some of the most utilized in the Pittsburgh market.

Zipcar User Survey

In Spring 2022, Zipcar sent out a survey to all its users and received **75 responses** from residents of Pittsburgh.

Zipcar users tend to decrease the amount of household vehicles after joining: 0 vehicles owned increased from 56% to 69%; 1 vehicle owned decreased from 40% to 28%; and 2 vehicles owned: decreased from 4% to 3%.

Zipcar users reported a variety of reasons for joining the service:

- 52% wanted to decrease transportation costs
- 51% cited needing an option to supplement public transit
- 19% cited needing an option for work trips

SERVICE & ANALYSIS: SCOOBI

Operational Challenges

The e-moped offering was unique to Scoobi, and to Move PGH, and presented some challenges in operations. Classified by PennDOT as a motor vehicle, a driver's license was required to operate the e-moped. This created a higher barrier for access to e-mopeds compared to other shared mobility options. This stricter regulation also meant first time riders had a longer onboarding video and quiz, taking upwards of half an hour to complete. This made spontaneous use of the e-mopeds cumbersome for many potential users. At the beginning of June 2022, Scoobi announced they were shutting down operations. The company had expanded to Austin in November 2021. As Austin is a highly competitive and unregulated market, Scoobi struggled to find its niche and consistent ridership. This, coupled with an aging fleet and other factors, led to Scoobi's decision to end operations.

Ridership

Scoobi operated a maximum fleet of 100 electric mopeds in a limited geographical area within the City.From July 2021 - May 2022, riders took over 11,000 trips on e-mopeds, covering a distance of 14,328 miles. The average trip distance was 1.29 miles and the average trip duration was 24 minutes. Average utilization of the e-mopeds was around 0.5 trips per vehicle per day.

COVID-19 Pandemic

The Coronavirus pandemic was a significant force which complicated many aspects of the budding Move PGH program. In Spring of 2020, the future looked uncertain for many of the PMC members as commuting rates tanked in favor of remote work, forcing Pittsburgh Regional Transit, a core member of the PMC, to reduce service on some of their routes. Although some members experienced some of their lowest ridership rates, others (namely POGOH) saw a considerable uptick in trips after the initial wave of COVID-19 infections. DOMI invested in efforts on building out online engagement platforms (Engage PGH, website, social media, etc.) to ensure residents could stay engaged in the planning process while traditional in person public meetings were not possible. Spin sought to expedite their launch in Pittsburgh to roll out low-cost renting options for essential workers as they had in other markets, but had to abandon their plans after encountering significant hurdles in gaining state approval to introduce their new vehicle type.

Pennsylvania Scooter Legislation

To this day, Pennsylvania remains the last state in the contiguous 48 to officially regulate the motorized e-scooter as a street-legal vehicle type. Before Spin could legally launch e-scooters in Pittsburgh, an adjustment to state policy, specifically the vehicle code, was required to legally classify the new mode. Spin began lobbying for this change in the early 2020, and found after an unsuccessful attempt at passing an amendment through traditional legislation was not a workable approach given the partisanship within state congress. Unfortunately, this time-consuming process preventing Move PGH's mobility suite from launching in Pittsburgh with previously planned timeline.

After roughly a year of coalition building, an administrative bill including a vehicle code adjustment was passed and signed by Governor Wolf. This included a small amendment to the vehicle code allowing a scooter rental enterprise to operate e-scooters solely within the City of Pittsburgh for a term of two years. While this progression was exciting victory for micromobility, the time-limited pilot model has cast uncertainty about the future of e-scooters in Pittsburgh and Pennsylvania more generally.

Infrastructure for Mobility Hubs

As a part of their RFP response, Spin committed to introduce 50 Swiftmile e-scooter charging stations throughout Pittsburgh at locations determined by DOMI with community input. Although installation of electrified equipment in the public right of way typically requires significant infrastructure improvements to connect to the electricity grid, it was quickly proven that Swiftmile stations could be connecting directly to city-powered streetlights. This allowed for the charging stations to be installed throughout most areas of Pittsburgh. Although street lighting is commonplace on most of Pittsburgh's public streets, most lights are attached to utility poles, which do not allow for easy connections to equipment such as Swiftmile stations. Since city-owned poles are typically only installed in commercial districts with recent streetscape improvements, plans to deploy mobility hubs in some neighborhoods were put on hold. Fortunately, DOMI plans to utilize a State grant to improve infrastructure in these communities, allowing for easier connections for various types of EV-charging equipment in the future.

Scoobi Shutdown

In June 2022, Scoobi announced they would be shutting down operations in Pittsburgh after four years of operations. Scoobi was a unique partner in Move PGH as a small, local startup company. The company had recently expanded into another crowded market and was not as successful as expected. This, coupled with lower ridership and need for greater investment in upkeep of the fleet, drained Scoobi's financial resources.

Public Perception

As a new presence in our right-of-way, Spin e-scooters attracted people's attention. While this was good in some ways, as some residents were excited to take a ride, others were critical of the new mode. As with anything new, there is a learning curve and an adjustment to living with e-scooters in our streets. There has been a demonstrated need for increased education for all residents, not just those who ride e-scooters, on which behaviors are permitted and which are not.

There has also been criticism that the City is prioritizing this work over what can be seen as more pressing needs. However, DOMI believes that there is not a one-size fits all solution to addressing accessibility and affordability issues. While we continue to work on building up our sidewalk infrastructure, expanding our bike(+) network, and more, we can also work on our first and last mile connections and expanding the integration of our shared mobility ecosystem.

Goals of Move PGH

1 *Make it easy and cost-effective for people who live or work in Pittsburgh to choose the best mobility option for a variety of trips, without reliance on personal vehicles.*

Integration of services and payments in the Transit app makes trip planning easier and more convenient for residents and victors. Physical co-location of modes at mobility hubs makes it easy for riders to take one service to another and get to where they need to go quickly and easily.

Transportation systems must be reliable for people to easily choose shared mobility over driving in a private vehicle. Part of reliability includes being available everywhere. Move PGH services are available in every City neighborhood, particularly PRT and Spin scooters. While some services, like POGOH and Zipcar, are not available in every neighborhood, we continue to push for future expansions.

Shared mobility options must also be affordable to encourage residents and visitors to choose these modes over driving. Services like Spin and POGOH offer discount programs for low-income individuals, lowering barriers to ridership. This makes a round trip bus ride, 30-minute e-bike ride, or 30-minute scooter trip all cheaper than a gallon of gas (as of June 15, 2022).

Making it easier for residents and visitors to choose shared mobility also includes making those options safer. We often refer to Pittsburgh's bike infrastructure as bike(+) infrastructure for a reason – it's for any micromobility. We see a strong correlation between high usage scooter routes and our bike(+) infrastructure. Studies have shown that dedicated bike lanes make the road safer for all users[3]. Furthermore, there are safety in numbers. More micromobility users on the road brings further awareness to these modes and how drivers should slow down and share the road.

2 *Increase access to Pittsburgh's transit system.*

While Move PGH introduced a new mode, it has also focused on better coordination between our existing modes. Traditional fixed route transit remains a core component of Pittsburgh's mobility ecosystem. 7% of Spin users reported using an e-scooter to connect to Transit – that's upwards of 40,000 trips.

The Transit app has also given PRT riders more up-to-date information on bus schedules, re-routing, and delays than ever before. The app saw over 10,000 downloads just after Move PGH's launch, with consistently higher download rates in the months following compared to early 2021. Usage of the app is higher now than it was before the pandemic, even though transit ridership is down overall since 2019.

While this has been great progress so far, we look forward to new integrations in the Transit app telling us more about how Pittsburghers use micromobility and connect to transit services.

3 *Create more travel options, including access to shared mobility modes, for communities that have been traditionally underserved by transit.*

Move PGH aims to serve every block of Pittsburgh and equity has been a key focus of the program from the beginning. DOMI requires Spin to deploy a certain percentage of their fleet in various areas identified as having a higher need for access to micromobility options as they are underserved by transit. These distribution requirements are some of the most extensive in the country. While policies like distribution requirements for Spin are a good start, more can be done to expand other services into underserved communities. DOMI and the PMC continue to encourage expansion of other services to these high need areas.

We also know that many transit deserts in Pittsburgh area predominately low-income communities and that lack of accessible and affordable transportation options limits opportunity. Because of this, multiple all members of the PMC offer discount programs to those who qualify for government assistance. Spin offers a 75% discount to low-income residents through the Spin Access program and trips starting in areas identifies as high need are automatically 25% off. POGOH has a new annual pass for low-income residents that's only $10 a year and offers unlimited 30-minute rides. These programs ensure that areas underserved by transit.

Goals of Move PGH

4 *Reduce overall vehicle miles traveled in Pittsburgh, without reducing the number of trips taken.*

Pittsburghers have ridden over 735,000 miles on Spin scooters, nearly 15,000 on Scoobi mopeds, and countless more miles on transit and POGOH. Over 35% of Spin users said that had scooters not been available, they would have taken their trip in a private vehicle. This means that scooters alone have taken approximately 257,000 vehicle miles off the road.

5 *Invest in improvements to Pittsburgh's transportation infrastructure for all road users, especially those who do not use a personal car.*

Mobility Hubs serve as the most visible infrastructure of the Move PGH program. These offer all users a dedicated place to find out when the next bus is coming or rent a scooter. With 20 hubs currently installed and 30 more to come, along with the 75 new POGOH stations, there will be over 100 dedicated shared mobility hubs in Pittsburgh by the end of 2022.

There are also over 150 scooter parking corrals with dedicated pavement markings and signs. Looking ahead to 2023, we hope to implement additional wayfinding signage at all mobility hubs.

Beyond the work of Move PGH, in 2021, DOMI installed 15 miles of dedicated bike(+) lanes, with another 15 miles to be installed by the end of 2022. We call them bike(+) lanes because they're not just for bikes, but also scooters and other micromobility devices. DOMI, with help from Bike Pittsburgh, has also installed over 300 bike racks in 2022 so far.

6 *Engage Pittsburgh residents and stakeholders in the design and deployment of emerging technologies and services.*

Community engagement has been key since the start of Move PGH, and we continue to seek community feedback regularly. We regularly meet with communities regarding mobility hubs and operations, and our operators frequently interface with the community on their own. Residents are encouraged to provide feedback on the Move PGH website and Engage PGH page, as well as through surveys in the Transit app or those sent to Spin riders.

7 *Offer a seamless and integrated suite of transportation technologies and services for a range of needs.*

The Transit app is a key component of Move PGH's Mobility as a Service mission. Currently, the app allows for trip planning using a variety of modes, including transit, scooters, bikeshare, careshare, and ride hailing. Users can view real time information on bus schedules and routes, as well as view locations of mobility hubs, available scooters, POGOH stations, and available Zipcars. Passes are available for Pittsburgh Regional Transit buses through the app, with plans to expand to the T line, Spin scooters, and POGOH bikes coming later this year.

8 *Demonstrate the potential of a public-private approach to operating a multimodal shared mobility platform.*

Move PGH has made Pittsburgh a more connected City, but it would not have been possible for any one actor of the PMC to achieve this alone. Having one operator for each mode means that each party can specialize in what they do best and have guaranteed ridership. This also gives DOMI and the City more control over operations of each mode and creates stronger partnerships. DOMI or PRT alone would not be able to manage the complex operations of their own bikeshare or scooter share program. Working with industry leaders, who have experience in numerous different markets around the world, ensures successful day to day operations of these programs. The success of Pittsburgh's program has given state legislators the confidence to consider expanding scooter pilots to third class cities.

Goals of Move PGH

9 *Reduce tailpipe emissions associated with the transportation sector in order to improve local air quality and decrease rates of respiratory diseases associated with such emissions.*

By increasing the availability of micromobility options, it's easier than ever for residents to choose more sustainable ways to travel. E-scooters, bikes, and e-bikes all offer fun and easy ways to travel that do not contribute to greenhouse gas emissions. It's estimated that traditional passenger vehicles emit one pound of carbon dioxide for every one vehicle mile traveled, which means Move PGH so far has stopped nearly 260,000 pounds, or 130 tons, of CO2 from entering our atmosphere[4].

Transit is also much more environmentally friendly than driving – bus transit emits half the CO_2 per mile than a private vehicle does. However, per passenger, buses emit even less than this. Furthermore, in recent years, Pittsburgh Regional Transit has also committed to investing in electric buses to lower the agency's carbon footprint; the agency currently has two fully electric buses and 26 hybrid buses in its fleet.

10 *Contribute to the just transition away from a carbon-based transportation sector by prioritizing communities that have been underserved by the current transportation system.*

Oftentimes, it's low income and minority communities that are most affected by the climate crisis and pollution. These communities are often the most underserved by traditional fixed route transit. This is why DOMI has made it a priority to require additional deployment of e-scooters in certain neighborhoods. As Move PGH continues, we hope to see a mode shift towards micromobility, included shared and personal, and transit as these modes are more sustainable.

Economic Impact

By improving mobility, Move PGH has the ability to improve economic opportunity for riders and our greater community. Some key ways in which Move PGH has had a positive economic impact include:

- Employment - Spin, POGOH, and Zipcar have hired over 50 W2 employees in total
- Time Savings - Pittsburghers who have saved time in their commute have increased their productivity by allowing their time to be spent on other quality of life enhancing activities.
- Access to Jobs- New mobility options offer new ways for Pittsburghers to commute to employment opportunities, especially in times and locations with poor transit service
- Increased Spending - Local businesses can benefit from increased patronage thanks to new ways for customers to make to and from their place of business.

Opportunities

Although Move PGH has been able to accomplish much with its limited funding and scope, the PMC has identified other opportunities for improvement and expansion that would make the most of the collaborative partnership:

- Mobility hub amenities: Move PGH could improve upon the amenities present at hubs by funding amenities such as branded artwork, greenery, benches, and other helpful amenities such as wifi or phone charging services.
- Energized hubs**:** City officials should seek to plan for larger-scale energized mobility hubs, which require significant civil infrastructure work to accommodate charging stations for electrified mobility.
- Gap-filling transportation services: In cases where transportation plans call for new mobility connections that may not be easily served by full-size transit routes or micromobility, officials should evaluate the potential for new services such as microtransit to operate as community circulators.
- Subsidized mobility: The PMC should continue efforts to allow transportation services to be purchased in discounted bundles, or should facilitate subsidized mobility wallets for low-income residents to spend as they choose.
- Transit-app survey: Given the Transit App's high utilization for Pittsburgh riders, the PMC should utilize the service as one way to gather feedback by conducting surveys regarding shared mobility in the City.

Transit App Integrations

Transit is already a great resource for planning your multi-modal trips, though it's about to get even better. Move PGH and Transit App are working to roll out a number of features later this year. These will allow users to rent POGOH bikes directly in Transit. Additional promotions and features are coming soon.

New Corrals and Hubs

DOMI and Spin are gearing up to install new mobility hubs later this summer. New locations are coming to Squirrel Hill, Downtown, and Central Northside. Other new hubs are in the planning stages, with the goal to invest in 50 mobility hubs by the end of the pilot. Potential new amenities at hubs, like additional modefinding signage, are also in the works.

Plans to install new corrals and perform maintenance on existing corrals is also scheduled to be completed later this summer, with locations spread out across the City.

Shared Mobility Plan

DOMI is in the first planning stages of completing a Shared Mobility Report. This report will detail the current landscape of shared mobility in Pittsburgh, where needs are not being met, what new goals we have, and recommendations for how to move forward. Look forward to more information and opportunities for community engagement this fall!

Guaranteed Basic Mobility Pilot

Coinciding with Move PGH's launch, the PMC announced plans to conduct a Guaranteed Basic Mobility (GBM) pilot in partnership with Manchester Citizens Corporation and Carnegie Mellon University. Similar to recent efforts often referred to as Universal Basic Mobility, this pilot was designed to grant a limited group of Manchester residents with "all you can ride" mobility services. The services provided for this pilot study by the PMC include unlimited transit rides, unlimited 30 minute bike share rides, five 30 minute e-scooter trips a day, and an allotment of car-share and moped-share credits. Subscriptions from each mobility service provider is being contributed at a discounted price and is paid for by a grant provided by the RK Mellon Foundation. Move PGH has partnered with researchers of Carnegie Mellon University to track both service usage and economic factors to study the potential benefits of guaranteed mobility.

Research shows that lack of access to reliable transportation is a leading barrier to economic mobility. By solely recruiting participants who qualify for governmental assistance, the intent of this pilot is not only to improve access to opportunity and other services, but to improve quality of life by reducing all financial barriers to moving freely. By guaranteeing no-cost options for getting from A to B, the PMC and its stakeholders hope that this study and others like it can guide broad governmental subsidies for basic transportation costs in the future. Participant selection is underway and the one year pilot plans to kick off this Summer.

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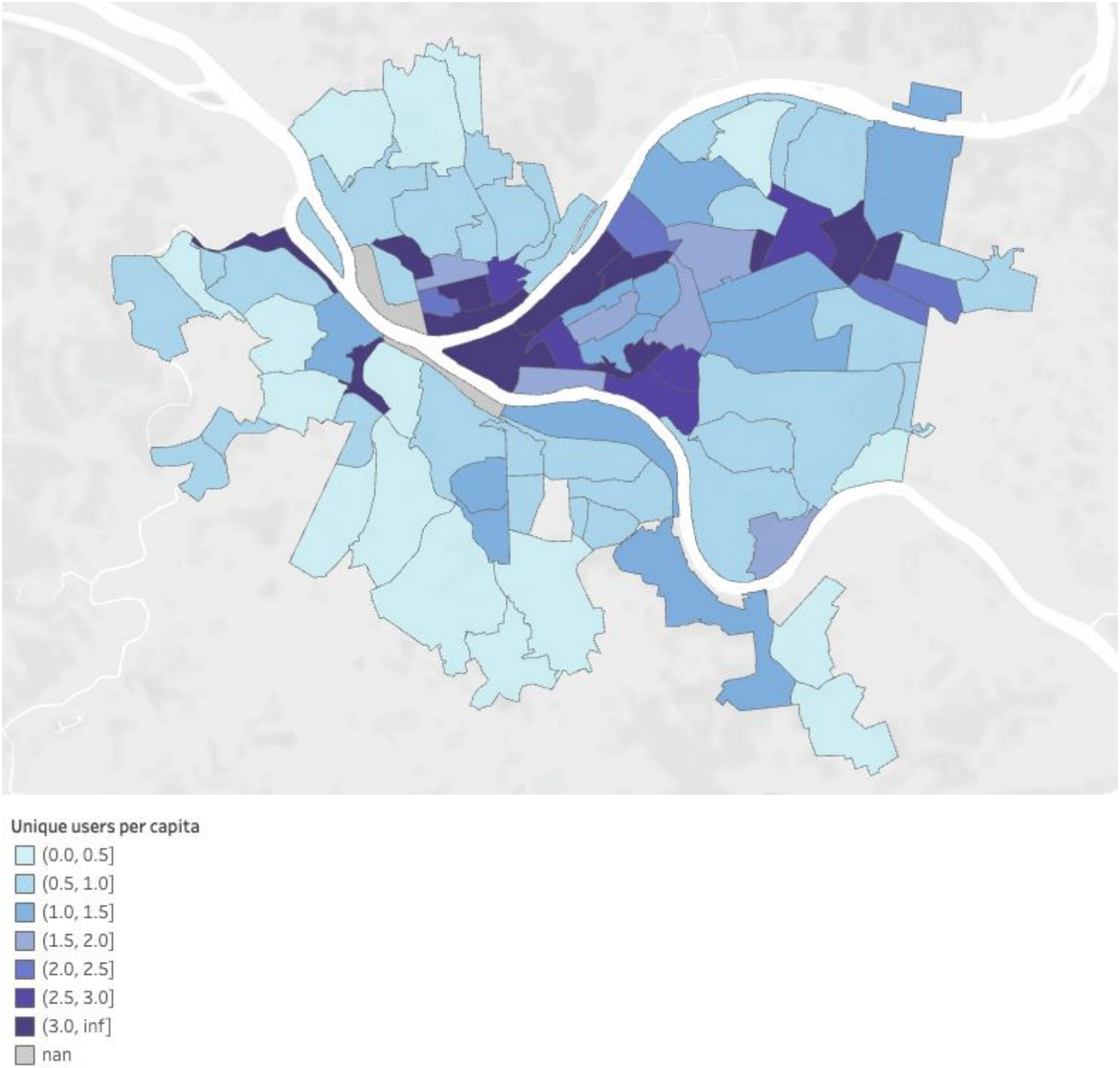
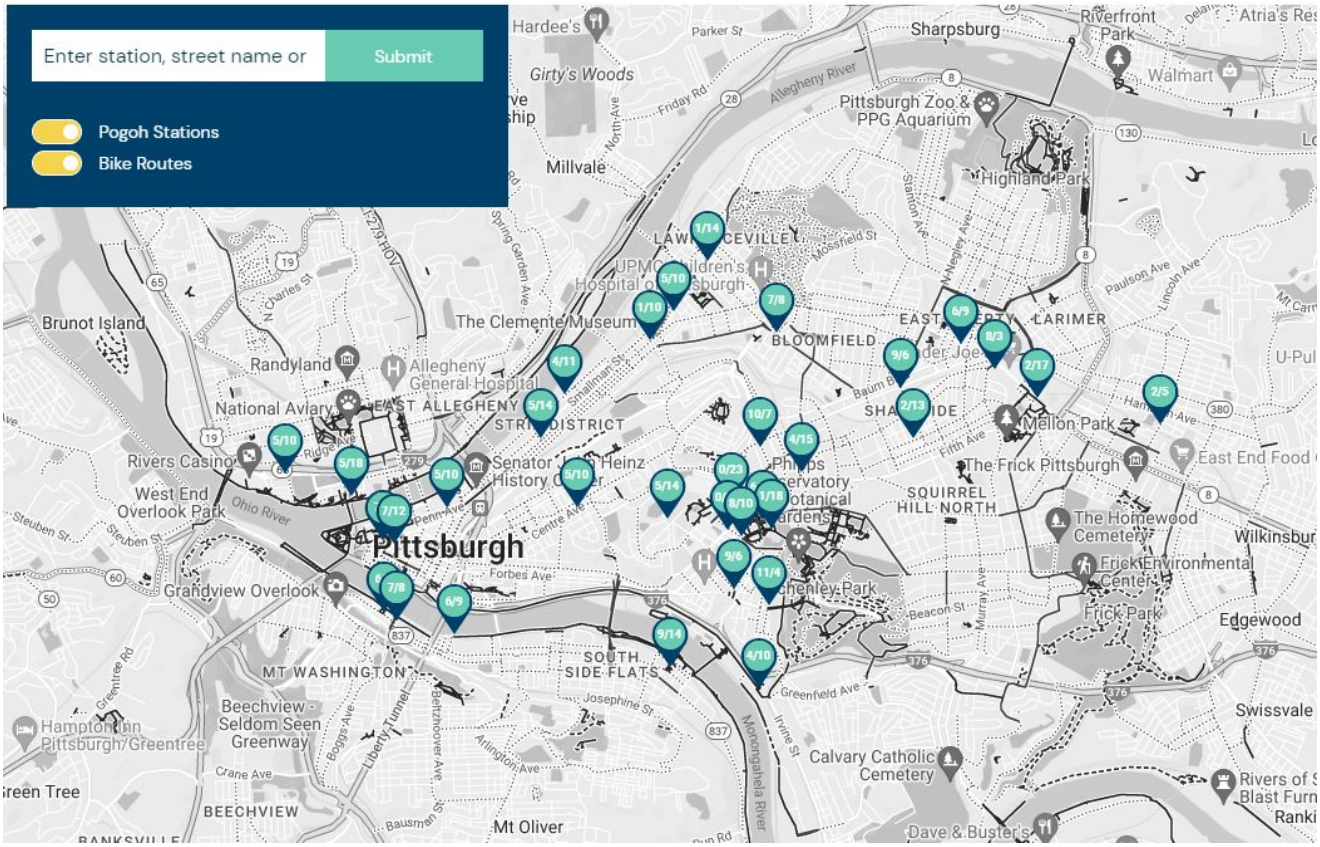
Appendix

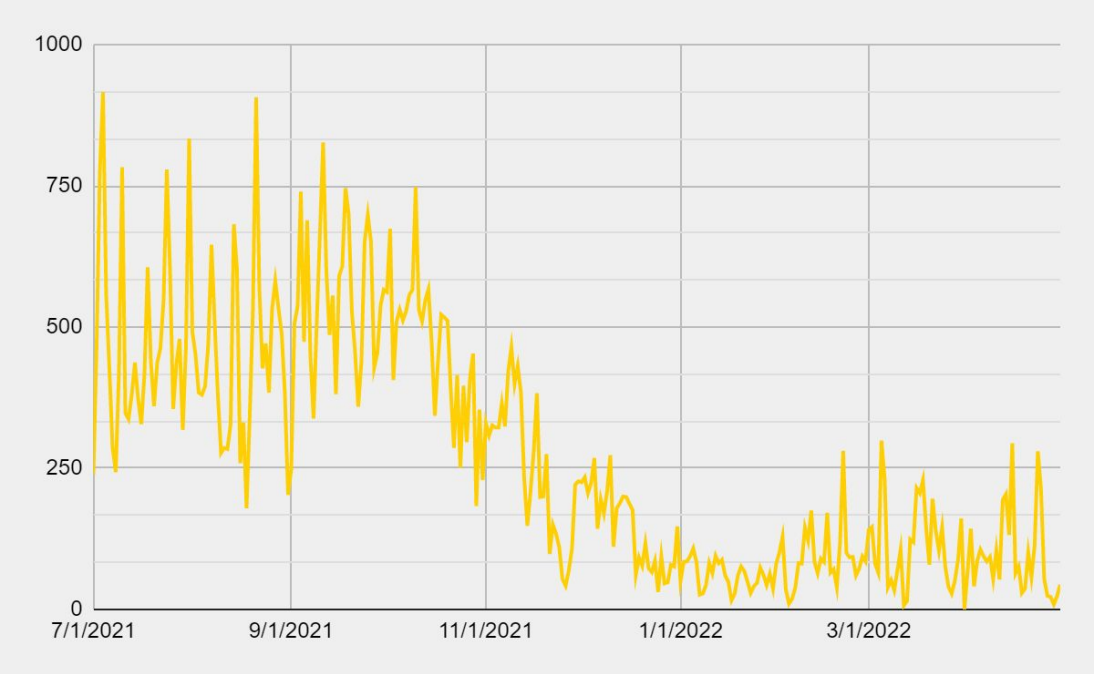
Transit App - Unique Users per Capita



POGOH System Map

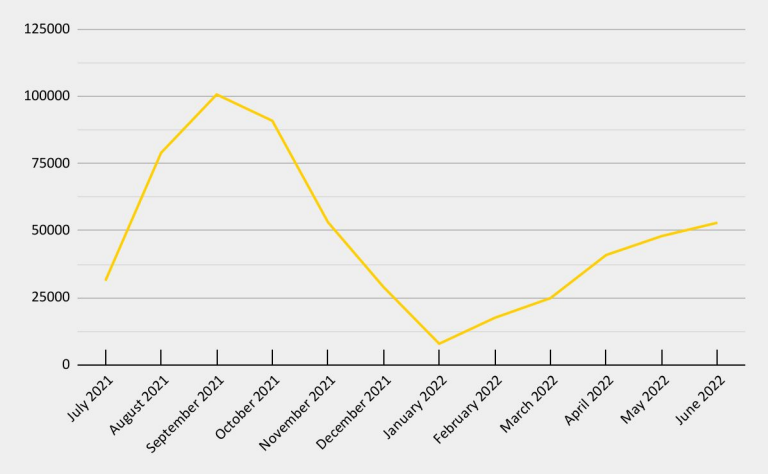


POGOH Ridership

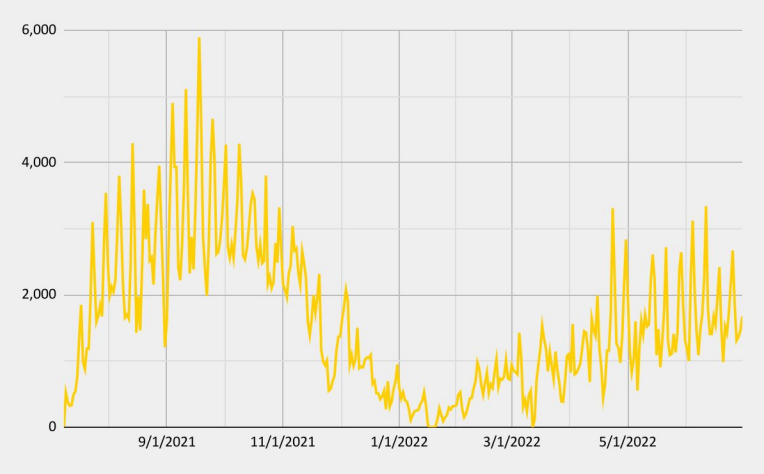


Bike Share Trips per Day (July 2021-April 2022)

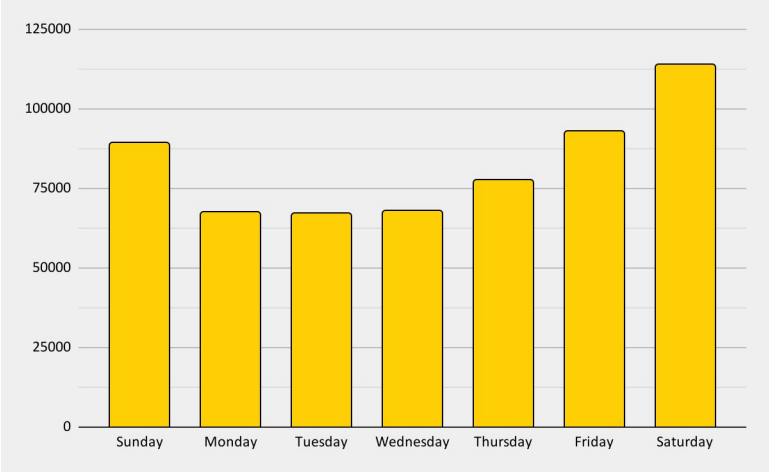
Spin E-Scooter Ridership



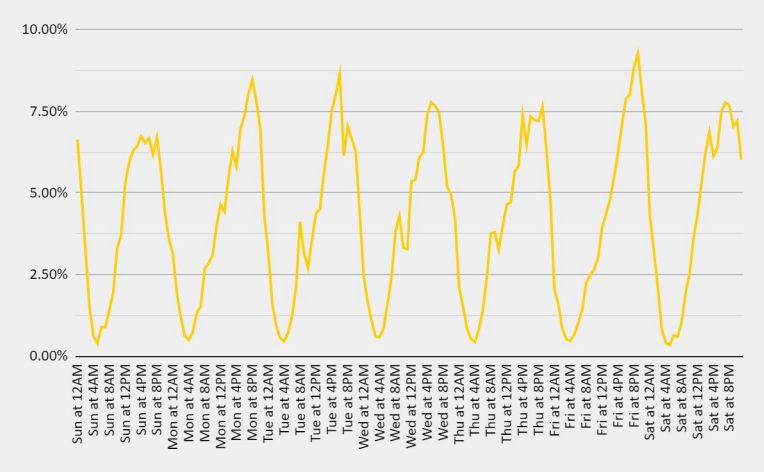
Spin Scooter Trips per Month (July 2021-June 2022)



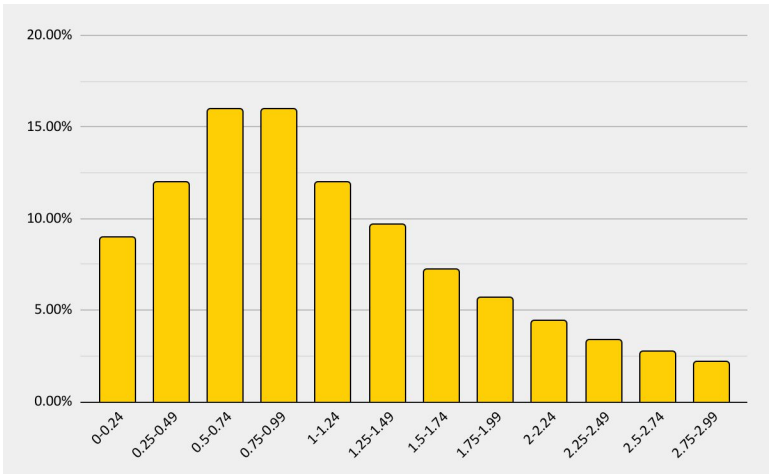
Spin Scooter Trips per Day (July 2021-June 2022)



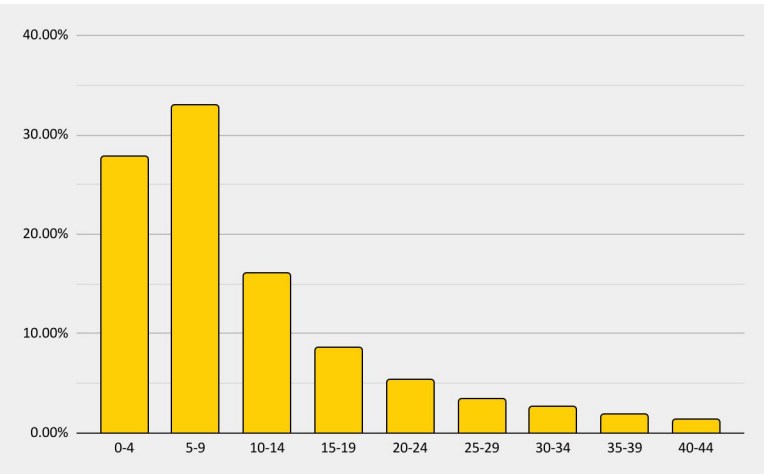
Spin Scooter Trips by Day of Week (July 2021-June 2022)



Spin Scooter Trips by Hour by Day of Week (July 2021-June 2022)

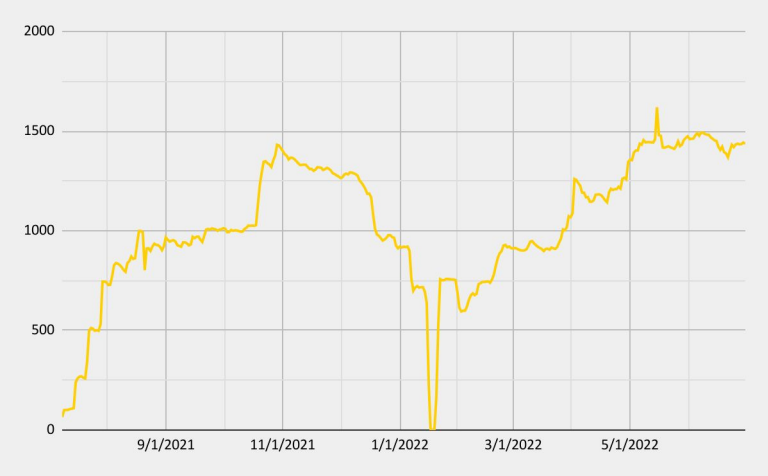


Most Common Trip Distances (miles) (July 2021-June 2022)

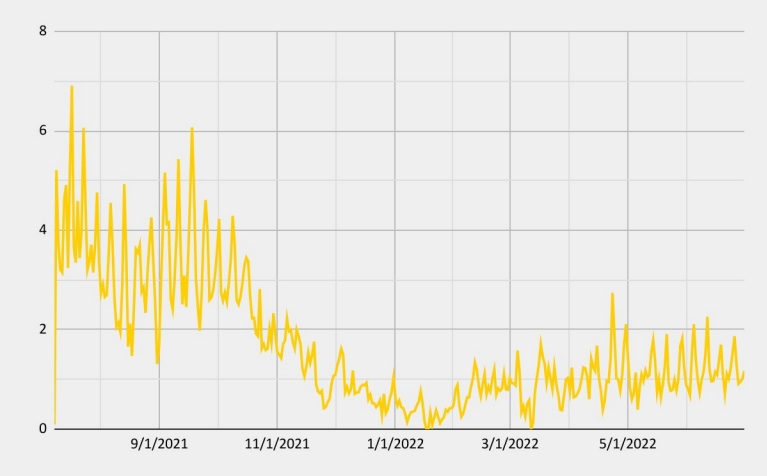


Most Common Trip Duration (minutes) (July 2021-June 2022)

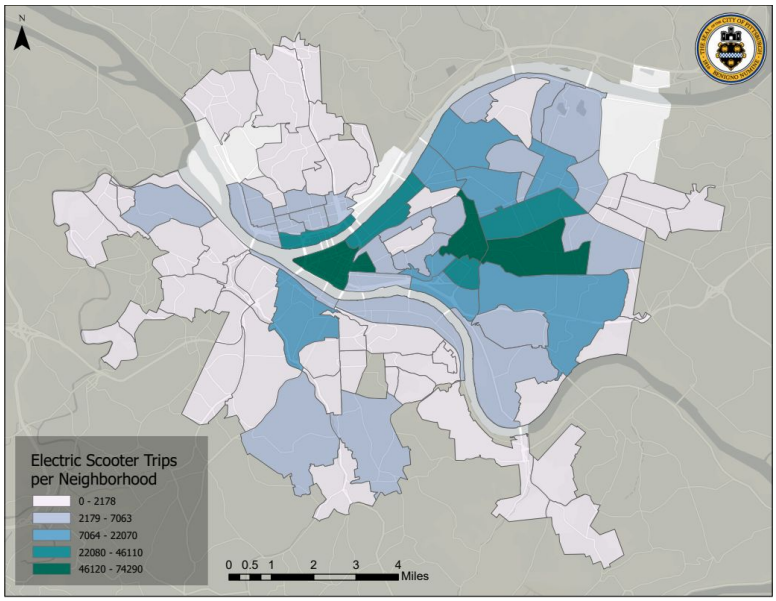
Spin E-Scooters Deployment & Utilization



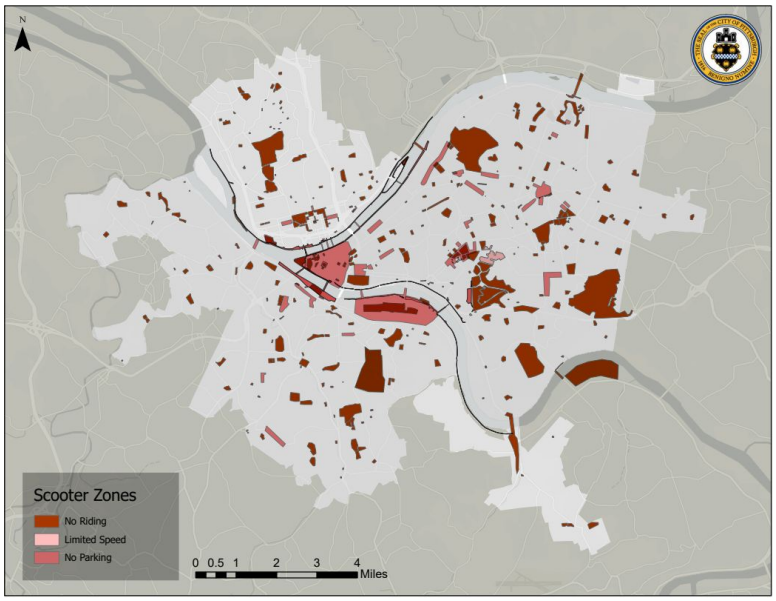
Number of Scooters Deployed by Day (July 2021-June 2022)



Scooter Utilization by Day (July 2021-June 2022)



Spin Scooter Trips by Neighborhood (July 2021-June 2022)



Map of Geofenced Areas

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Spin Reported Complaints and Injuries

Month	Total Trips	Improper Parking		Damaged Vehicle		Accident / Injury	
		Complaints	Complaints Per 1000 Trips	Complaints	Complaints Per 1000 Trips	Complaints	Complaints Per 1000 Trips
Jul 2021	31,351	94	3.00	60	1.91	4	0.13
Aug 2021	79,060	472	5.97	110	1.39	15	0.19
Sept 2021	100,808	549	5.45	220	2.18	12	0.12
Oct 2021	90,982	380	4.18	150	1.65	11	0.12
Nov 2021	53,465	267	4.99	74	1.38	2	0.04
Dec 2021	28,967	143	4.94	8	0.28	0	0.00
Jan 20212	7,849	103	13.12	17	2.17	3	0.38
Feb 2022	17,528	64	3.65	29	1.65	5	0.29
Mar 2022	24,860	116	4.67	40	1.61	3	0.12
Apr 2022	40,930	131	3.20	43	1.05	2	0.05
May 2022	48,014	102	2.12	29	0.60	11	0.23
Jun 2022	52,912	129	2.44	84	1.59	10	0.19
Totals	576,726	2,550		864		78	
Averages	48,061	212.5	4.8	72	1.5	6.5	0.15

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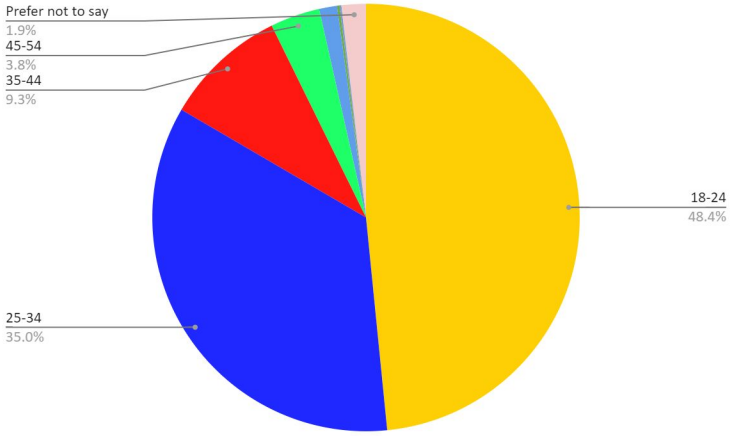
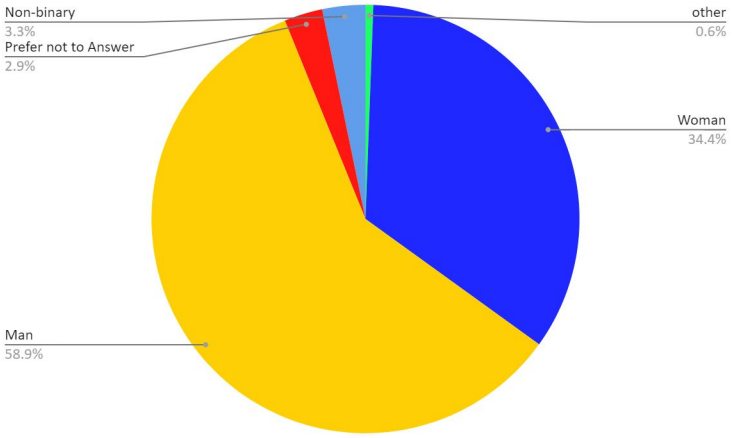
Spin User Survey - Demographics

In June 2022, DOMI and Spin sent out a survey to all Spin users registered in Pittsburgh. **2212 responses** were received.

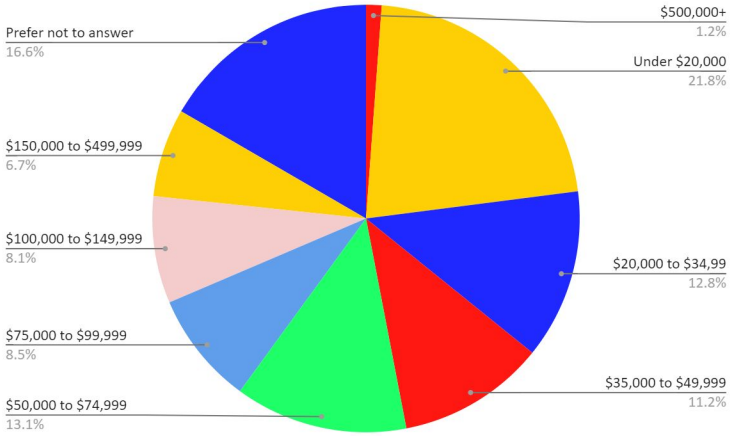
Age



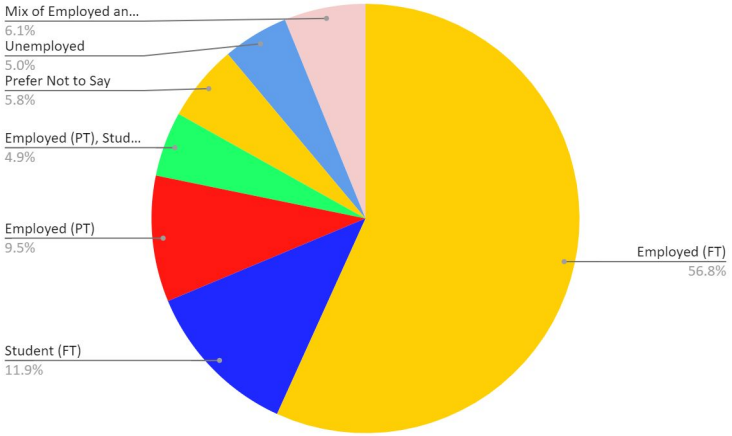
Gender



Income



Employment



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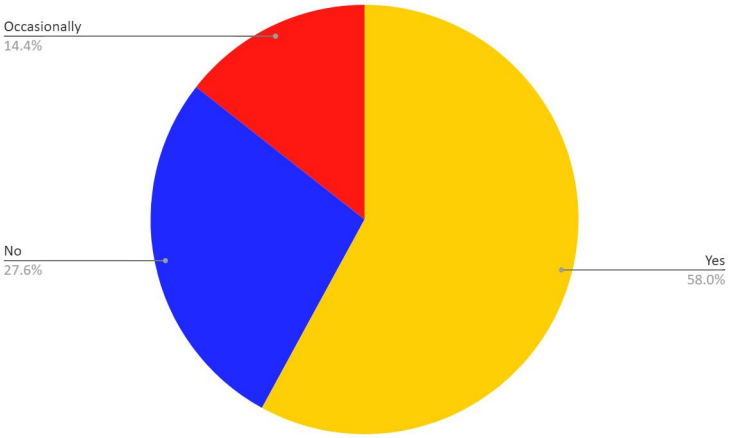
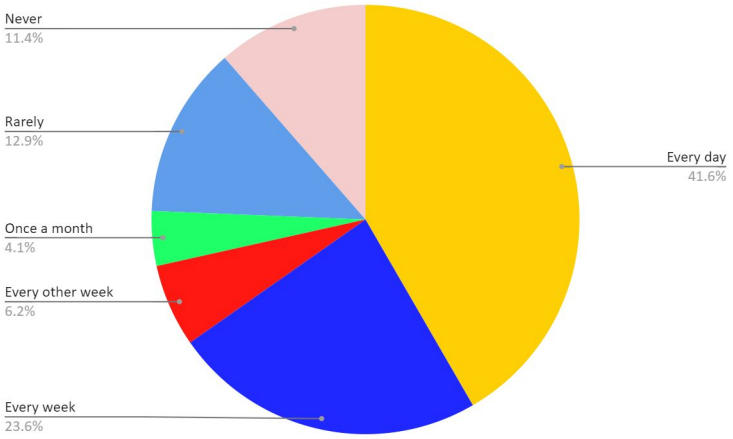
Spin User Survey - Ridership Statistics

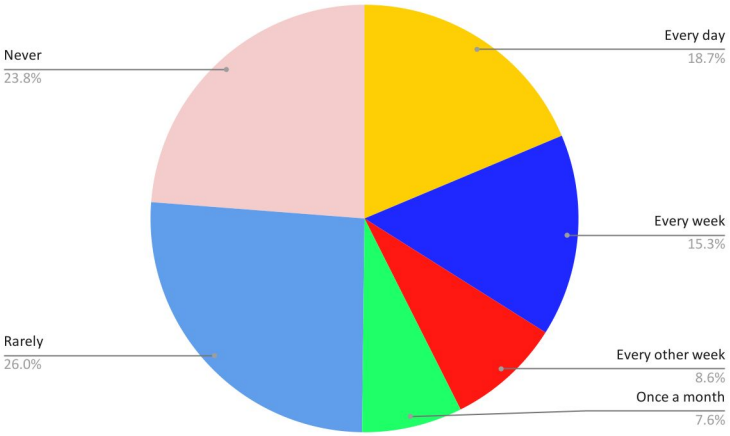
Do you have access to a privately owned car?



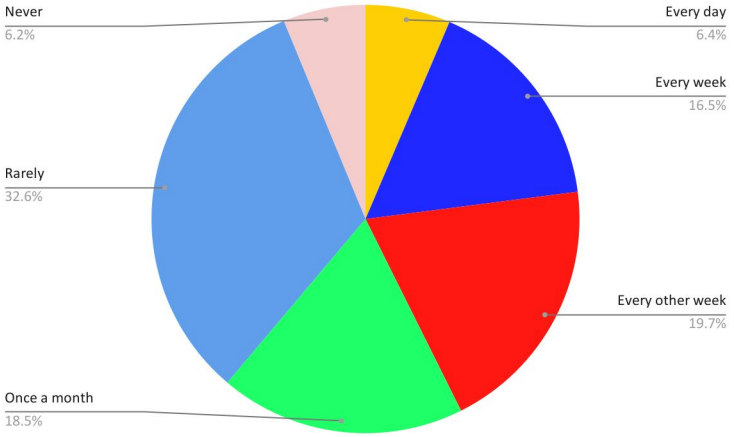
How often do you drive in a private vehicle?



How often do you ride transit?



How often do you ride scooters?



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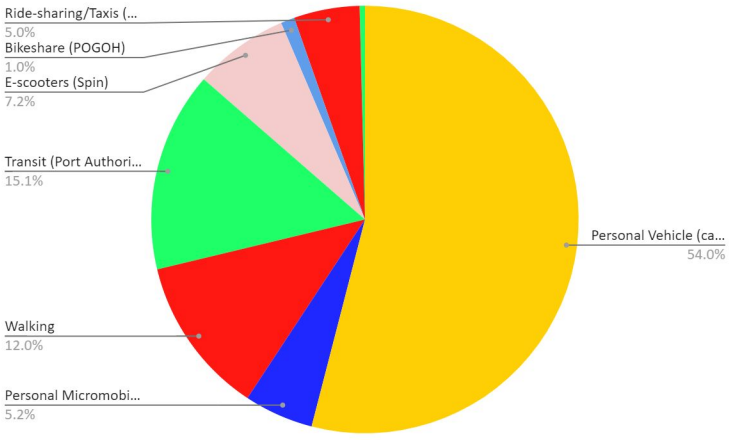
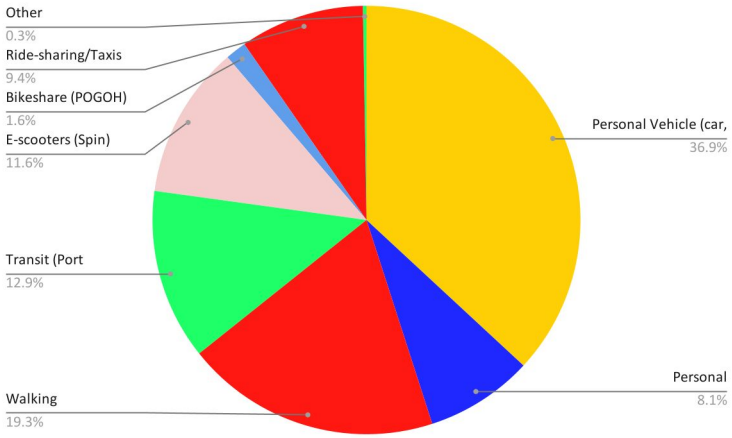
Spin User Survey - Trip Cases

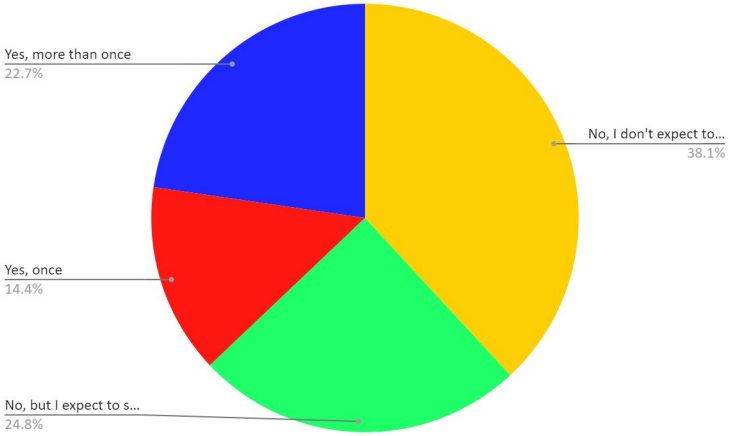
What mode do you use most often for essential trips



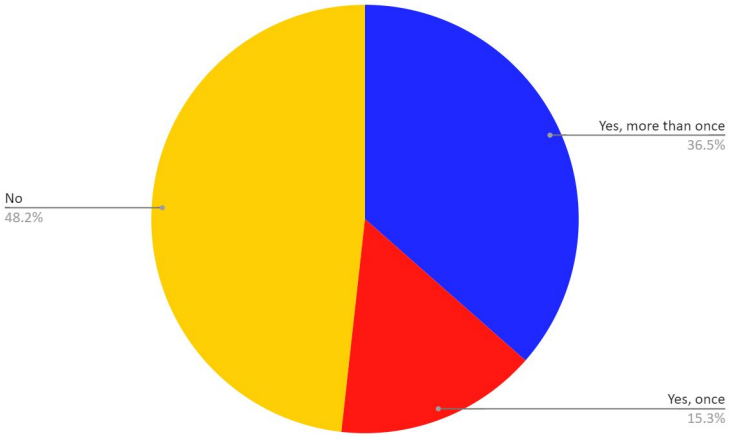
What mode is your next most common choice for essential trips?



Have you used shared e-scooters to connect to a public transit trip?



Have you used the Transit App to plan or book transit trips in Pittsburgh?



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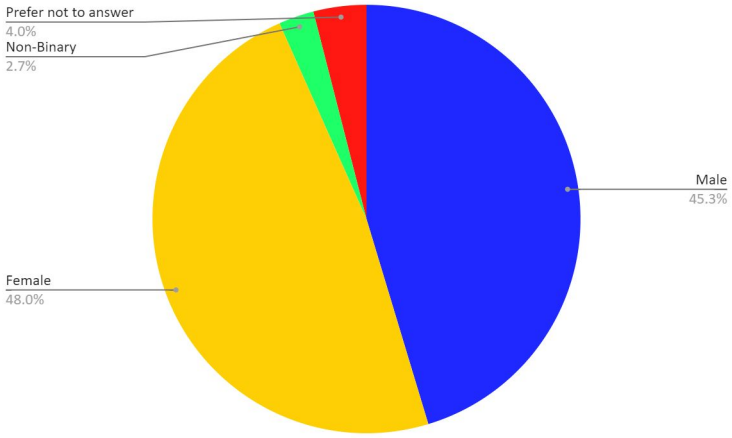
Zipcar Trips

Location Name	Total Reservations	Total Hours Reserved	Total Miles Driven (mi)	Avg Reservation Duration (h)	Avg Reservation Distance (mi)
Bayard St & Morewood Ave	306	1899.30	11422.84	6.27	37.98
Centre Ave & Cypress St	533	3172.16	21453.54	5.92	40.26
Centre Ave & N Neville St	713	4619.73	30176.50	6.64	42.55
Centre Ave & S Euclid Ave*	525	2926.64	16619.53	6.10	33.41
Fifth Ave & S Neville St	176	1151.27	8060.14	5.41	42.56
Fifth Ave & N Dithridge St	426	2002.23	17170.58	4.97	38.54
Forbes Ave & Grant St*	362	2484.42	16809.32	7.66	50.30
Forbes Ave & Meyran Ave	175	2588.05	12869.25	14.68	74.25
Forbes Ave & Murray Ave	335	1641.72	11307.71	4.84	32.80
Forbes Ave & Schenley Dr	268	2587.87	15933.06	9.45	58.39
Fourth Ave & Smithfield St*	937	7224.52	42165.18	7.88	44.83
Liberty Ave & 10th St	434	3494.52	21264.37	7.84	47.47
Liberty Ave & S Millvale Ave	296	2179.87	15460.49	7.41	49.89
Murray Ave & Phillips Ave*	1041	5142.39	29038.70	5.28	27.91
Thackeray St & O'Hara St*	238	2002.25	15,439.40	8.31	63.17
Third Ave & Wood St*	498	3116.52	20844.18	6.50	43.07
Walnut Ave & Ivy St*	431	2726.04	11187.24	5.97	25.61
Walnut St & Bellefonte St	410	3335.73	20271.32	7.91	47.88
Totals	**8104**	**54295.23**	**337493.35**	**6.99**	**43.54**

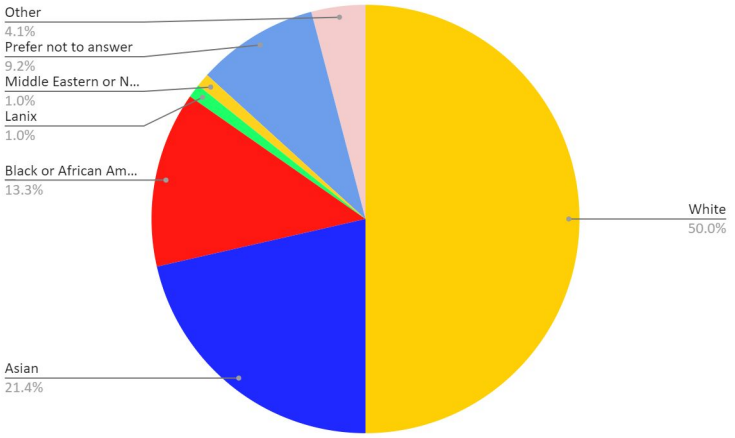
**Locations that pre-date 2021 expansion*

Zipcar User Survey - Demographics

Gender



Race



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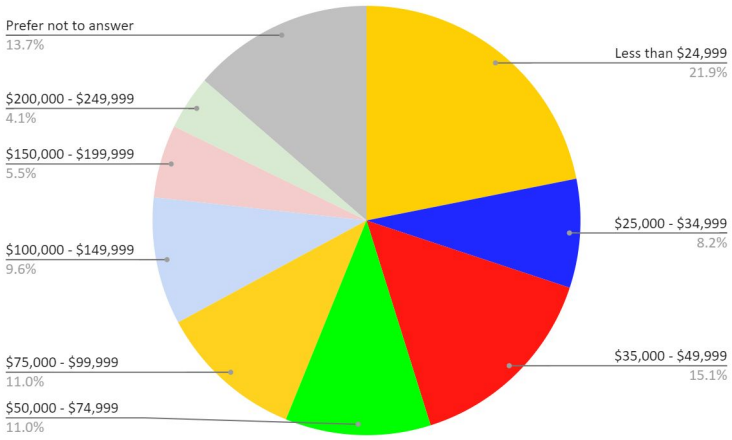
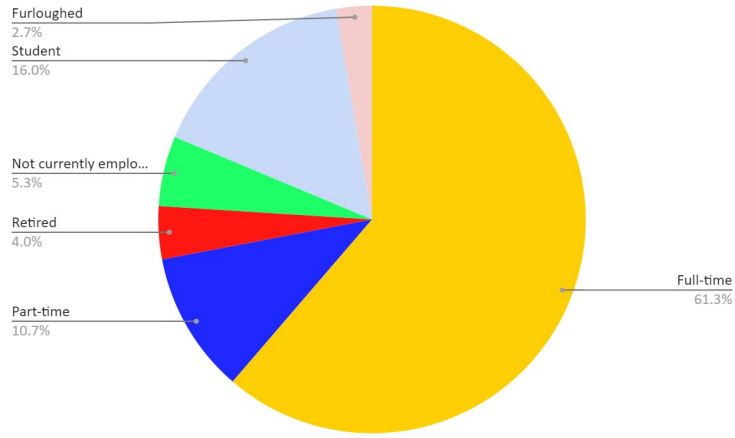


Employment



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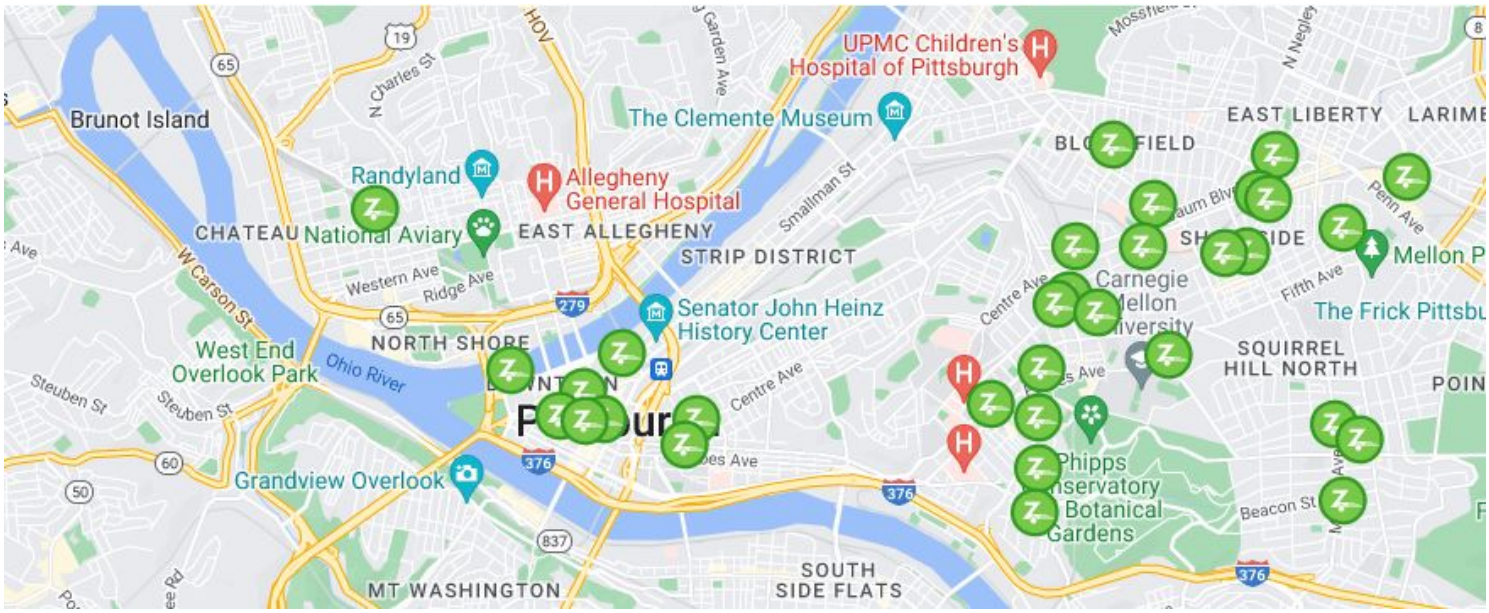
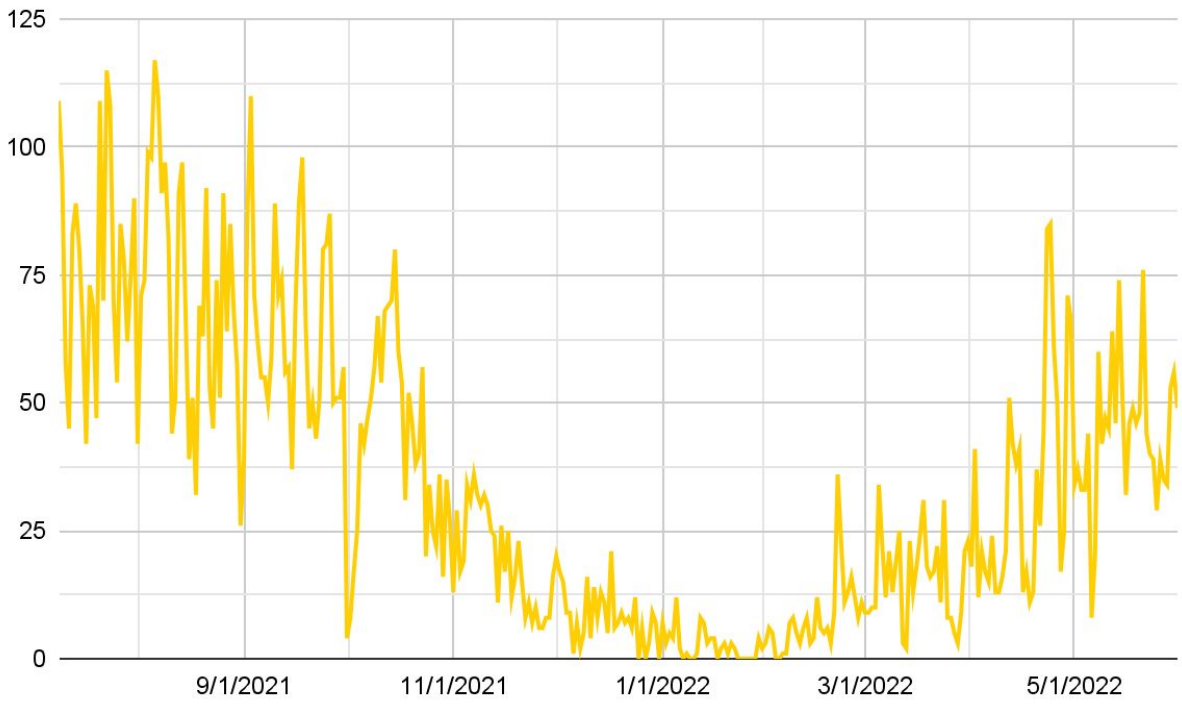
Zipcar System Map



Scoobi Ridership



Scoobi Trips by Day (July 2021 - May 2022)

Citations

1-https://sharedusemobilitycenter.org/what-is-shared-mobility/

2- https://triblive.com/local/port-authority-rebrands-to-pittsburgh-regional-transit/

3-
https://www.governing.com/archive/car-ownership-numbers-of-vehicles-by-city-map.html

4
-https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/PublicTransportationsRoleInRespondingToClimateChange2010.pdf